

COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

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| In the Matter of: |) | |
| |) | |
| Preparation of the 2007 Integrated |) | Docket No. |
| Energy Policy Report (IEPR) |) | 06-IEP-1L |
| |) | |
| Land Use and Energy in California |) | |
| _____ |) | |

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

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Lorraine White

Panama Bartholomy

Martha Krebs

ALSO PRESENT

Reid Ewing
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University of Maryland

Robert Wilkinson
University of California Santa Barbara

Mike McKeever
Gordon Garry
Sacramento Area Council of Governments

Susan Freedman
Robert Leiter
San Diego Association of Governments

Steve Sanders
Institute for Local Government

Suzanne Reed
Center for Clean Air Policy

John F. Barna, Jr., Executive Director
California Transportation Commission

Gary Patton
Planning and Conservation League

ALSO PRESENT

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Sacramento Metro Air Quality Management District

Beverly Alexander
Pacific Gas and Electric Company

Chris Terzich
San Diego Gas and Electric Company

Patricia Arons
Mary Beard Deming
Southern California Edison Company

Doug Newman (via teleconference)
National Energy Center for Sustainable Communities

Judy Corbett
Local Government Commission

Steve Devencenzi
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Victoria Rome
Natural Resources Defense Council

Terry Parker
California Department of Transportation

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P R O C E E D I N G S

9:05 a.m.

PRESIDING MEMBER PFANNENSTIEL: Good morning. This is the Energy Commission Integrated Energy Policy Report workshop on land use, energy and climate change in California. Thank you for being here.

I'm Commissioner Jackie Pfannenstiel; I'm the Chair of the Energy Commission and the Presiding Commissioner on the IEPR Committee. My fellow Commissioner on the IEPR Committee, John Geesman, was not able to be here today. I believe somebody from his office will be joining us later.

We have a very full and, I think, extremely interesting and important agenda today. Most of us here realize that land use decisions are critically important in California, if we are planning and intend to meet the AB-32 goals of carbon reduction.

Transportation use accounts for about 41 percent of the state's carbon emissions. And as we look at means of addressing that part of the carbon problem we realize that there are only a couple levers you could pull on transportation, one of which, and I believe one of the most

1 significant of which, is land use decisions.

2 So, we're here to consider both good
3 examples of what can be done in land use, and
4 there are a number, and they're articulated in the
5 staff's report. But also what kind of systematic
6 methodological way we can look to improve land use
7 decisions in the state that will change the
8 relationship between growth of population and
9 growth in carbon emissions.

10 So, with that, why don't I turn it over
11 to Lorraine.

12 MS. WHITE: Thank you, Chairman. Good
13 morning, everyone; my name is Lorraine White. I'm
14 the Integrated Energy Policy Report Program
15 Manager.

16 The workshop that we're holding today is
17 part of the overall proceeding to develop the
18 Integrated Energy Policy Report. The Commission
19 is required to do so every other year, exploring
20 various issues associated with the state's energy
21 demands and their consequences.

22 In particular, today we're going to be
23 looking at the relationship, as the Chairman has
24 said, between land use decisions, land uses and
25 energy.

1 There's always a few logistics to go
2 over, so if you'll bear with me just a moment.
3 Here at the Energy Commission you can find certain
4 facilities fairly near this room. Restrooms just
5 out the double doors and to the left. There's
6 also another set of rooms behind the elevators.

7 If you would like refreshments we
8 welcome you to join us on the second floor; we
9 have a small snack shop up there under the awning.

10 We also, in the event of an emergency,
11 ask that you exit the building following staff to
12 the place we're supposed to all meet, which is the
13 park across the street. And when we are given the
14 high sign we can then all return.

15 As part of the overall proceeding we
16 encourage participation. We look forward to the
17 input from various parties. It's exceptionally
18 important to us in the development of our analyses
19 and the policy recommendations that stem from
20 them.

21 This particular workshop we're
22 facilitating such participation in a couple of
23 ways. The first, for those that cannot be here in
24 person, we are webcasting the presentations and
25 the audio over our website. And we're also

1 providing a toll-free call-in number in the event
2 that people have questions or would like to make
3 public comment.

4 That call-in number for those of you
5 listening on the webcast is 1-800-857-6618. A
6 passcode is required; that is IEPR, and I'm the
7 call leader, Lorraine White.

8 For those of you here in person we
9 encourage you, if you have questions or comments,
10 to bring them up. We have a podium here where
11 there's a mike and we ask that you please go to
12 the podium so that we can actually get the
13 information on record.

14 Today's agenda is fairly full. We're
15 very fortunate to have very distinguished
16 individuals who have looked at the issues of land
17 use and its relationships to other resource needs,
18 in particular energy.

19 Today we're going to be looking over the
20 land use issues and land use decisionmaking
21 processes, various technologies, and their
22 relationship to state carbon reduction goals.

23 In terms of what may happen in the
24 future we're going to be exploring alternative
25 scenarios in which we may be able to do our land

1 use decisions in a different way, that take into
2 consideration a whole host of issues, in
3 particular energy and carbon.

4 We're going to be looking at the
5 infrastructure issues and how we can meet those
6 needs of the future with better decisionmaking.

7 We've ask utilities to provide us their
8 perspective, so as to better understand their
9 needs and issues and that's relationship to land
10 use decisions.

11 We're going to be exploring the
12 opportunities for research and development to help
13 us in this area. And as I have mentioned already,
14 we're going to ask people to provide us their
15 input.

16 In particular, the Integrated Energy
17 Policy Report is a very important process for us.
18 It is where we look at the conditions and issues
19 facing the state related to its energy consumption
20 conversion, environmental consequences and the
21 like.

22 We're tasked with the legislation to
23 assess and forecast supply/demand price. We're
24 also tasked with looking at various issues that
25 face the state related to its energy consumption

1 and uses.

2 In particular in this cycle we're
3 focusing on land use issues and decisionmaking
4 processes and those types of impacts that they
5 have on the energy system. In addition, we're
6 looking specifically at lighting efficiency,
7 nuclear energy, coal technologies that may be
8 developed in the future, costs of generation.
9 Those are particular issues that we've called out
10 in this cycle.

11 From these analyses we'll be developing
12 recommendations for needed policies to help the
13 state meet its needs. It's very important for us
14 to work with market participants and other
15 stakeholders to obtain the needed information we
16 depend upon in order to develop those assessments
17 and analyses.

18 We also consult with our sister agencies
19 at the state, federal and local levels. In
20 particular, when exploring land use decisions our
21 work with local agencies is critical.

22 As I have mentioned, this proceeding
23 results in a report that is adopted every two
24 years. In the intervening years we're tasked with
25 updating our analysis. What we're discussing

1 today actually stems from our initial work as part
2 of the 2006 update. And in that update we
3 identified specific things that we needed to
4 explore in more depth - the purpose of today's
5 workshop.

6 This proceeding will result in a report
7 that we hope to adopt on October 24th in time to
8 transmit it to the Legislature by the statutory
9 deadline of November 1st.

10 For this workshop today we do have
11 materials out in front that will help you follow
12 along, and perhaps encourage you to focus in on
13 questions or comments that you might have to
14 offer.

15 We also have information about this
16 workshop and the overall proceeding on our
17 website. That is where you can actually find a
18 copy of the draft report, The Role of Land Use in
19 Meeting California's Energy and Climate Change
20 Goals.

21 For general information about the
22 proceeding I encourage you to contact me. The
23 information is also there on the website, but I've
24 provided it here. In the notice you'll also find
25 contact information in the event that you would

1 like to explore this particular issue in more
2 depth with Panama Bartholomy, our Staff Lead on
3 the topic.

4 If there's any questions about the
5 overview for today I'd be happy to answer them.
6 Otherwise I'd like to pass it off to Panama.
7 Chairman.

8 PRESIDING MEMBER PFANNENSTIEL: Thank
9 you, Lorraine. Panama.

10 MR. BARTHOLOMY: Thank you, Lorraine.
11 Good morning, Chairman and those of you in the
12 audience. My name is Panama Bartholomy; I work in
13 the transportation fuels division here at the
14 Energy Commission, also known as the best division
15 in the Commission.

16 (Laughter.)

17 MR. BARTHOLOMY: Before we start I'd
18 just like to really briefly thank some of the
19 staff that have helped work on this workshop and
20 also on the staff paper. You'll be seeing a lot
21 of me today, but really they were a huge part in
22 making this happen. I'd just like to briefly
23 acknowledge them.

24 Gina Barkalow; Nancy McKeever; Gerry
25 Bemis; Kelly Birkinshaw; Suzanne Phinney; Sandra

1 Fromm; Phil Misemer; Joanne Vinton; Cherie Davis;
2 Jameel Asalam; Julia Silvis and Pat Perez all
3 played a very large part in making today and the
4 staff draft report possible. So thank you very
5 much for your efforts.

6 We have a very busy agenda today and a
7 great list of speakers. I'm not going to be
8 speaking too much to any of these issues as we
9 start, but I would like to really briefly say what
10 the goal of this workshop is, and try to set some
11 of the tone for it.

12 Today we're going to be creating a
13 record of the leading research, practices and
14 examples of smart growth and development here in
15 the state. And out of that record, where that
16 will assist us in formulating policy
17 recommendations for the Governor, the Legislature,
18 other state agencies, and utilities in the hopes
19 of bringing about the kind of policies that'll
20 help us meet our climate and energy goals.

21 The format of today's agenda really
22 closely matches the outline of the staff draft
23 report. And so you can be following along at home
24 with that staff draft report as we go through the
25 speakers today.

1 So, with all of that, thank you, all,
2 very much for coming. And we're going to get
3 right into the speakers.

4 Our first speaker is Dr. Reid Ewing from
5 the University of Maryland. He's the Director of
6 the National Center for Smart Growth at the
7 University of Maryland; a former legislator from
8 the State of Arizona. And he'll be coming up and
9 talking to us about the impact of land use on
10 vehicle miles traveled, CO2 and urban development.

11 So, please help me welcome Dr. Reid
12 Ewing.

13 (Applause.)

14 DR. EWING: Thank you. I've been asked
15 to give you a quick overview of a whitepaper we're
16 in the process of writing and getting reviewed
17 right now. The whitepaper is on the subject
18 mentioned, it's on urban development patterns,
19 their affect on vehicle miles traveled, and
20 ultimately on CO2 emissions.

21 It is going to be put out by the Smart
22 Growth Leadership Institute in Washington. The
23 funding is from EPA. We've recently heard, and
24 we're very pleased, that the Hewlett Foundation
25 will provide us with enhancements, so the graphics

1 you're about to see will be much improved in a
2 later draft. These are just ones I put together,
3 myself.

4 And the draft is being peer-reviewed
5 right now. I know the California Energy
6 Commission Staff is looking it over, and a lot of
7 other people are, as well. So I've been asked to
8 just review what we've learned and what we've
9 concluded.

10 The whitepaper starts with this notion
11 that we have a perfect storm in climate change
12 policy right now. All the stars are aligned.
13 Just an amazing collection of events in a very
14 short period of time. You're all aware of them,
15 you know, the intergovernmental panel report
16 predicting disaster, basically, if we don't do
17 something about the problem.

18 A Supreme Court decision, probably one
19 of the most important decisions in the Supreme
20 Court history, related to the environment. And so
21 on. So, we have this long list of things that go
22 back maybe three or four years, and they tell me,
23 as the primary author, that the world's about to
24 change.

25 There's also an interesting kind of

1 convergence in urban planning. A whole bunch of
2 things coming together almost at once to cause us
3 to plan our communities differently than we have
4 in the post-war, post-World War II, that is, era.
5 And you've got movements that you're aware of,
6 like new urbanism. The demographic shift's
7 probably the most important, smaller households,
8 aging baby boomers. You've all heard this. Just
9 can't overstate the importance of this, how this
10 is going to change the way we do business.

11 I've done a lot of work on urban sprawl
12 and obesity, its consequences in the area of
13 health. You've got contact-sensitive solutions to
14 highway design problems. I never would have
15 believed that eight years ago. So, a lot of
16 things are changing in my field, as well.

17 The reality on the ground is that we
18 just can't afford to develop the way we have. And
19 for so many different reasons, kind of
20 collectively the cost of sprawl.

21 These are the graphics that caused
22 Governor Glendening in the State of Maryland,
23 where I work, to initiate smart growth. He was
24 the first smart growth governor, if you interpret
25 smart growth the way we do in Maryland, anyway, he

1 was the first.

2 And what you see on the left are the --
3 is the development footprint for the period 1900
4 to 1970. And it's concentrated, as you can see,
5 and involved more in Washington. And then on the
6 right, 1970 to 2000, it's almost the negative of
7 the other one. And the amount of sprawl that has
8 occurred. And we're losing our resources, as a
9 state, and he wanted to do something about it.
10 Initiated smart growth.

11 On the subject of demographic shifts,
12 you could talk forever on the importance this will
13 have. But I'm going to instead just choose to
14 show you one graphic. These are from Chris Nelson
15 at Virginia Tech, looking at demographic trends,
16 and saying that the demand, the unmet demand,
17 which is the beige bar on each of these, for
18 attached housing is considerable.

19 In other words, the 2025 demand is
20 purple. That's the demand. The 2003 supply is
21 the blue bar. And the unmet demand, if you will,
22 through 2025 is the beige bar, the third of three.

23 And so we have big demand for attached;
24 big demand for small lot, single family. And we
25 actually have more large lot, single family right

1 now than we need in 2025 if the projections are
2 correct. So that's just a dramatic graphic
3 showing that even if we don't change our public
4 policies immediately to cause these changes in
5 land development patterns, the market will change
6 us.

7 VMT CO2 connection is the second
8 section. These are Steve Winkelman's graphs;
9 they're from the Center for Clean Air Policy. I
10 know a lot of you have seen this. The official
11 forecast showed that -- and this is a really good
12 time to use a laser pointer. This is a pen, so
13 this will not do.

14 Thank you very much. I don't know why I
15 never remember this. But, what you have here are
16 1990 CO2 levels across here. And here actual CO2
17 levels. From cars and light trucks. Going up.
18 Even though vehicles become more efficient and
19 less polluting, a little bit, this green line,
20 that improvement is overwhelmed by the growth of
21 VMT in the official DOD forecast. And you end up
22 with this difference between CO2 in 1990 and CO2
23 in 2030. That's in the wrong direction to reach
24 sustainable levels of CO2.

25 We need to bring CO2 emissions down

1 relative to 1990, not up. So that's the first
2 kind of shocking wake-up call graph.

3 If the California current standards were
4 adopted nationwide, this is what we'd have. We
5 would have more efficient vehicles, but still
6 growth of VMT, projected growth of VMT. And you'd
7 pretty much break even on the CO2. You'd be
8 roughly at the levels of 2003.

9 So we've got fairly flat CO2 emissions
10 nationwide if California standards were adopted
11 nationwide --

12 PRESIDING MEMBER PFANNENSTIEL: Excuse
13 me, when you say the California standards, you
14 mean the Pavley standards that are now being
15 contested in court? Is that the California
16 standards?

17 DR. EWING: Yeah, the 2004, I believe,
18 standards. CO2 emission --

19 PRESIDING MEMBER PFANNENSTIEL: I see,
20 okay. I got it, thank you.

21 DR. EWING: You're welcome. And these
22 are Steve's graphs, and you know, just using them.
23 But my understanding is that if just the, I think
24 it's first phase standards were adopted
25 nationwide, which what is your first phase, not

1 the second, and so on, that's what you'd end up
2 with.

3 And the important point is that that CO2
4 line, emission line, is pretty much flat. And it
5 doesn't take you below the 1990 level of CO2
6 emissions for the U.S. And Steve is playing with
7 these now. The Center for Clean Air Policy is
8 saying, well, what if there was a second phase and
9 so on.

10 And this line now is getting closer; it
11 maybe even comes down to the 1990 level of CO2
12 emissions nationwide, but not below. And you
13 would know this better than I. I'm not a climate
14 change person, but my understanding is that we, to
15 achieve targets that seem to be widely accepted,
16 we've got to get the CO2 levels down relative to
17 1990 by something like 50 percent, or 50 to 80
18 percent of the figures, I've heard.

19 And I'm now going to be moving into
20 something material I am comfortable with. With
21 that as a kind of prologue, that's how compact
22 development can be used as a VMT reducer. And one
23 caveat. There's no question that if we can build
24 our communities, our regions in a compact fashion,
25 VMT will -- VMT per capita will go down. Okay, at

1 least relative to trend.

2 But then the question is will there be
3 an offset. Will this greater concentration of
4 jobs and households lead to lower travel speeds
5 and less efficient vehicle operations. And this
6 is something we're still playing with right now.
7 Again, this is Steve Winkelman's.

8 But the range I think we're talking
9 about is in here, you know, the 55 miles per hour
10 may be the ideal operating conditions from the
11 standpoint just of efficiency of operation of a
12 gas-powered car. But, you know, it can go down a
13 little bit without a big penalty, as long as it
14 doesn't go down too far.

15 Now, obviously this is an average.
16 We're interested in the entire driving cycle. But
17 the idea is that slow and steady is not a bad
18 state to be in, from the standpoint of emissions,
19 okay.

20 So then I'm going to now focus on just
21 the urban development-VMT connection. Having said
22 that I don't think there's a big penalty, I think
23 there's going to be some advantage, too. If we do
24 compact development, vehicle trips, trip rates go
25 down, as well.

1 So, two out of three. VMT goes down;
2 vehicle trip rates go down. And maybe speeds go
3 down with a small offset, but not a huge one.
4 That's our thinking at this point. And Steve and
5 the people working on that end are figuring that
6 out.

7 This is my portion right here. How does
8 urban development affect VMT. And the way I
9 approached this was to look at four different
10 literatures. These are all well-established
11 literatures in urban planning.

12 Aggregate travel studies, disaggregate,
13 regional simulations and project-level
14 simulations. And look at the literature and ask
15 what does it tell us about the relationship
16 between urban development patterns and vehicle
17 miles traveled.

18 And my conclusions are a little
19 different than some that you'll see soon. I'm an
20 Associate Editor of the Journal of the American
21 Planning Association. Our August issue is going
22 to have a paper that is much less optimistic than
23 I am on this. And I've wondered about it, you
24 know, probably would like to have that revised.

25 But I think that the evidence supports

1 what I'm about to tell you, the weight of evidence
2 across the four literatures.

3 Aggregate travel studies. Atlanta has
4 the highest VMT per capita. This is Atlanta.
5 Well, why does it? Well, it's sprawling in every
6 sense. It's scattered development; it's low
7 density; it has separated uses and so on. So
8 these studies that have been at the level of the
9 metropolitan area or the city or the county tell
10 us that as a place becomes more sprawling VMT per
11 capita goes up.

12 We created a sprawl index with EPA
13 funding a few years ago. And we defined sprawl in
14 the most comprehensive way we could. Sprawl is
15 low density; sprawl has segregated land uses;
16 sprawl lacks strong centers, downtowns and others;
17 and has a sparse street network as opposed to a
18 well-connected street network.

19 We operationalized each of those;
20 measured them. This is sprawl, low-density single
21 use. This is sprawl, strip commercial as opposed
22 to centered development, village centers, town
23 centers, downtowns. This is sprawl,
24 interconnected street -- or lack of
25 interconnection on the streets, so every trip's

1 longer than it need be.

2 That's the way we measured sprawl. And
3 we used 23 different variables that were available
4 from different sources. Put together a sprawl
5 index, and this is what we found.

6 Excluding the two metropolitan areas
7 that are outliers, the two being Jersey City and
8 New York, they're just such outliers we got rid of
9 them. Because the comparison would have been much
10 more extreme.

11 But getting rid of those, comparing the
12 ten most sprawling to the ten least sprawling
13 metropolitan areas, you have about a 25 percent
14 difference in VMT per capita between them. So
15 most sprawling, least sprawling. Ten most
16 sprawling.

17 Twenty-five percent is what you gain in
18 the long term if you develop like Philadelphia
19 metropolitan area rather than like Atlanta; or
20 like San Francisco rather than like Riverside-San
21 Bernardino. So, 25 percent from the aggregate
22 statistics.

23 Disaggregate travel studies. This is
24 the area of urban planning where more research has
25 been done than any other. We have well over 100

1 studies now. It is really the only area in urban
2 planning in my opinion that supports a megastudy
3 right now; we're doing one.

4 This is a graph that John Holtzclaw and
5 others have put together showing average vehicle
6 miles per household for these large planning zones
7 in Chicago. And this is the downtown area and the
8 outlying areas. The average VMT per household is
9 twice here what it is here, a little over twice.
10 So, huge differences across a metropolitan area.

11 And in this kind of comparison you can
12 find all over the place. You can do it in
13 Sacramento, or you can do it in Los Angeles. And
14 you'd find something like this, a curve that looks
15 a little like this where, as density goes up, VMT
16 goes down. And fairly dramatically.

17 And the biggest reduction is in this
18 portion of the curve right here, between say, two
19 and eight households per acre. And then further
20 reductions down here. That curve is reproduced
21 all over the place.

22 Now, the density here is a proxy for a
23 lot of things. It's not just density. It's
24 availability of mass transit; it's probably some
25 socioeconomic differences; it's, you know, a

1 greater mix of land uses and so on. All those
2 things go with density.

3 So we've done some careful studies to
4 control for socioeconomic influences and to
5 control for transit availability and so on. And
6 look at the independent effect of what are now
7 called the four or five D variables. Density,
8 diversity, which is mix, design, destination
9 accessibility, demographics, et cetera.

10 So we've done a lot of these. We did
11 this for EPA back in 2000. These, what are called
12 elasticities, ended up in smart growth index
13 model. I'm not going to -- I'd be happy to talk
14 about elasticities and how they're defined.

15 But what this says is basically as
16 density is increased by 10 percent there's a half-
17 percent reduction in VMT. As mix is increased, as
18 you get 50 percent greater mixing, or 100 percent
19 greater mixing, -- excuse me, 10 percent greater
20 mixing of land uses, you get a 5 percent
21 reduction, or .5 percent reduction in VMT.

22 And same thing with design. And the big
23 thing is regional accessibility. If you put
24 development in accessible location and toward the
25 center of a metropolitan area, you get this big

1 reduction in VMT. You put them all together and
2 that suggests something like a 30 percent, maybe
3 over 30 percent reduction in VMT per capita if we
4 just double everything; double regional
5 accessibility, double density, mix, et cetera.

6 The third kind of study where we have a
7 lot of them, and have done work on them in the
8 whitepaper are these what you call blueprint
9 studies. They're also called regional simulations
10 or scenario planning studies.

11 This is one for the Charlottesville
12 area. And the two scenarios that were compared,
13 using their regional travel model; it's one with a
14 dispersed development pattern and a lot of
15 spending on roads, to another that has
16 concentrated development and existing town centers
17 and splits the available money between roads and
18 transit.

19 This is typical of scenario studies.
20 Now, it turns out there have been a lot of these
21 things done. I know there's been a lot of
22 interest in the Sacramento blueprint study here,
23 or plan here, in the SCAG plan. But these have
24 been done all over the country.

25 And what you see are the, this is the

1 percentage reduction in VMT relative to trend.
2 Trend being kind of sprawl, sprawl continues. And
3 here are the percentage reductions. And notice
4 there's some scenarios that actually produce more
5 VMT than trend. And these are more dispersed
6 scenarios. Sometimes more dispersed scenarios are
7 compared to a trend scenario which has at least a
8 little planning.

9 And so you've got all these scenarios
10 and what sense can you make of them. And all that
11 variance; how do you explain it, from study to
12 study. And here are the important factors.

13 The farther you go out in time the
14 bigger the impact. The more dense your scenario
15 the bigger the impact related to trend. The more
16 you spend on transit the bigger the impact. And
17 so on.

18 And it turns out there are enough of
19 these studies so you can actually start to model
20 effects, where the individual study or the
21 individual scenario is the datapoint. And that's
22 what we've done in the whitepaper. This is with
23 Keith Bartholomew at the University of Utah, who's
24 done a lot of work on scenarios, regional
25 scenarios.

1 And you get a line that looks like this.
2 This is the percent difference in density on the X
3 axis; this is the percent difference in VMT per
4 capita on the Y axis, going down. So, as you go,
5 if you look at the slope of this line it says that
6 for a 10 percent increase in density you get about
7 a 3 percent reduction in VMT.

8 So that's the same number. It keeps
9 coming up over and over and over. It says
10 something like 20 or 30 percent can be achieved
11 through these sorts of things.

12 We remodeled the results of the
13 scenarios and this is what we found. A smart
14 growth development pattern, a compact development
15 pattern that increases average regional density by
16 30 percent, emphasizes in-fill and so on, would
17 reduce VMT by about 15 percent, based on these
18 many many different blueprint studies.

19 Last kind of study that's relevant are
20 these project level simulations. And we looked at
21 a lot of these. There have been something like 30
22 of these. Rather than simulating growth in the
23 entire region, what these studies do is compare
24 the individual developments, the amount of VMT
25 generated by individual developments if you move

1 them around within the region, or if you redesign
2 them to make them, you know, more dense and more
3 mixed and so on.

4 The grandfather of these studies is
5 Atlantic Steel or Atlantic Station. Wonderful
6 smart growth project from which we can learn a
7 lot. In this case the location of Atlantic Steel
8 was central to the region. It's in midtown
9 Atlanta. And then that location was compared to
10 the same amount of development at outlying
11 locations on the perimeter, and even further out.

12 And what we found when we did this for
13 EPA was that there'd be a one-third reduction in
14 daily VMT per capita if the development was --
15 same amount of development was located at the
16 Atlantic Station site in midtown versus the most
17 outlying sites.

18 So, good regional accessibility reduced
19 VMT by about a third. And then the question
20 became, well, what if we redesign the project to
21 make it denser and more mixed and to have a more
22 interconnected street network.

23 There were three different plans
24 prepared and they were compared in terms of their
25 VMT and mix; and you can get another 5 percent

1 basically. On top of that 30 percent or 33
2 percent, you can get another 5 percent -- 30
3 percent, 33 percent, by putting the development in
4 a central location you can get another 5 percent
5 by designing it in a smart growth kind of way,
6 with higher density and greater mix and so on.

7 So, here's the consistent picture that
8 at least results when I look at the evidence.
9 That if we do compact development versus trend or
10 sprawl, we can expect to reduce over say a 25- to
11 50-year period VMT per capita by something like
12 20-plus percent.

13 Now, whether it's 20 percent or 30
14 percent, 30 percent or 40 percent, depends on a
15 lot of things. It depends on how much growth
16 we're reallocating. How much redevelopment is
17 occurring. How bad trend is in terms of those
18 four D or five D variables. How good smart growth
19 is.

20 But that's a big number. And that is a
21 lot bigger than the number in the paper that's
22 going to appear in August in JAPA. And, you know,
23 but it seems to be -- to me, you don't want to
24 over-reach, you don't want to over-promise. On
25 the other hand you don't want to be so

1 conservative, almost ignoring the empirical
2 literature. So that's what we tried to do.

3 And we've got peer reviewers and they
4 may rein us in a bit. I don't know what the final
5 numbers are going to be, but there will be final
6 numbers arranged in a way of predicting the effect
7 on VMT.

8 Now, one huge caveat is if you build
9 roads to a degree in a congested area, they will
10 come. And you can undo the good work you've done
11 through compact development, just by building
12 high-performance highways. It's the whole subject
13 of induced travel and induced development.

14 We know, and there's been a lot of
15 research in California that road building in
16 congested, high-performance highway building in
17 congested areas will, in the short term, have
18 impacts on trip making, mode choice and route
19 changes. In the longer term can affect auto
20 ownership, transit service and ultimately the
21 location of activity.

22 And this is Mark Hansen's work; he's UC
23 Berkeley. He's done some very very good work on
24 this. It simply plots the effects of expansion in
25 a corridor; highway capacity expansion in a

1 corridor from day one out several years. These
2 are individual corridor studies.

3 On day one there's an increase of
4 anywhere from zero to almost 30 percent in
5 traffic. That's when the new facility's opened
6 and you have this big increase in capacity. And
7 over time it grows. It grows as people relocate
8 and jobs relocate to take advantage of the
9 improved accessibility.

10 So, Robert Cervero, UC Berkeley, was
11 nice enough to write a review article maybe three
12 years ago. Look at what is now a very substantial
13 literature and say, well, these are the numbers I
14 can live with. He's an outstanding scholar. If
15 he comes up with these numbers I think we can be
16 fairly confident that they're right in the
17 midrange.

18 And what this elasticity tells you is
19 that if you increase capacity, highway capacity by
20 10 percent, you will get a 7.3 percent increase in
21 VMT. So you may want to do it, but do it with
22 full knowledge that it's going to run counter to
23 your goals in terms of moderating the growth of
24 VMT. And the more congested the area, clearly the
25 more that impact kicks in.

1 Smart growth, what will that do for you?

2 I was asked to talk about this. Unlike the
3 material I've been giving you, this hasn't been
4 vetted. Panama said, well, you know, take it a
5 step further. What would you do to try to achieve
6 the compact development patterns that would
7 produce this result.

8 This will be written and this will be
9 vetted and reviewed at some point in the next
10 month or two. It hasn't been, but just off the
11 top of my head, you can't get there with planning
12 alone. I think we know that fairly clearly from
13 ICE-TEA and T-21 and the metropolitan planning
14 factors that should be considered and typically
15 aren't.

16 Even the new starts program with its
17 emphasis on land use, I don't think, has produced
18 dramatically different land use patterns most
19 places. NEPA, CEQA, probably even most of the
20 blueprint plannings. It's going to have to be
21 more than just a planning exercise if you want to
22 create the compact development patterns.

23 I think there are three fairly good
24 models. They typically are presented as
25 alternatives to another. I think that you should

1 consider them complementary. If you really want
2 to have an impact, you're going to have to do all
3 three of these.

4 Number one is a regulatory Portland-
5 like, Oregon-like framework. The Oregon framework
6 is urban growth boundaries, density targets,
7 changes in zoning to allow those densities to
8 occur. A wonderful transportation policy rule
9 which you should probably just adopt wholesale,
10 with goals for VMT reduction and urban design.

11 And then new transportation investments,
12 different transportation investments. Portland
13 area is the classic; that's their 20/40 blueprint
14 with centers willing to buy light rail. They took
15 the western bypass out of the plan. They built
16 the westside max line instead. This was -- the
17 beltway was removed.

18 And they planned TOD all along the
19 westside land light rail line. And to
20 Hillsborough and this is what they've got. And it
21 is impressive. It is impressive.

22 People debate how good Portland is, but
23 compared to most of the U.S., it's good. The
24 downtown is stronger, I think almost anyone would
25 agree, than it would be without the course they've

1 taken with urban growth boundaries and so on.

2 The suburbs are denser. There's a lot of
3 transit-oriented development.

4 Maryland smart growth is another
5 approach. It's not using regulatory, it's use the
6 power of the state to spend; it can spend here; it
7 can spend there. And basically the Maryland smart
8 growth program is putting money where you want,
9 state money where you want land development, which
10 is in the priority funding areas. Putting money
11 in the areas where you don't want development to
12 create permanent conservation easements.

13 And what we've seen in Maryland is a
14 dramatic shift in where money is spent. On the
15 left you have where money -- school money used to
16 be spent. On the right where school money was
17 spent in 2002. It's being spent in existing
18 communities. It was spent previously in
19 greenfield areas.

20 And, you know, you got wonderful
21 examples of Montgomery County and the way it's
22 implementing it, shifting growth away from its
23 wedges and into its corridors and centers.

24 Florida is the third example. I'm from
25 Florida, as well. I actually lived there and was

1 involved in creating this. And we got off in the
2 wrong direction initially, but I think we
3 corrected it.

4 We used concurrency, which is adequate
5 public facilities, to guide growth. We found that
6 we were actually diverting growth from central
7 areas to outlying areas initially; so basically
8 allows cities to exempt their roads from level of
9 service standards. Because we'd like development
10 to occur in cities, in what are called
11 transportation and currency exception areas. And
12 don't want it to occur way outside. There's an
13 anti-sprawl rule which has some advantage.

14 And we're now in the process of creating
15 multi-modal districts where we measure performance
16 of transportation in the multi-modal fashion.

17 And Orlando, in the first round of
18 growth management, exceptionally good with
19 corridors, mixed-use corridors. Activity centers
20 where growth was redirected. Standards set for
21 minimum densities and not maximum densities,
22 minimum densities.

23 The zoning codes totally rewritten to
24 allow dense mixed-use development where we wanted
25 it. And basically you put in zoning districts

1 with single uses were eliminated. Most of the
2 non-single family detached districts were
3 eliminated in favor of mixed-use districts.

4 And all of the traditional city of
5 Orlando was exempted from roadway level service
6 standards. And you've got two wonderful,
7 wonderful examples, you know, okay, this is just
8 theory, but southeast sector planning, which I'd
9 love to tell you about. And then the planning for
10 the Naval Training Center reuse, that's Baldwin
11 Park. Wonderful example of how these things play
12 out.

13 Change in funding priorities, probably
14 the most important single thing you do. Spend
15 less on roads, and particularly high-capacity
16 roads, high high-performance roads. And put the
17 money anywhere else. If you put it into roads,
18 make sure they're not the kind of roads that take
19 people 50 miles, at least initially, 50 miles in
20 50 minutes, so they can live 50 miles farther from
21 their job. And put more money into transit.

22 The curve on the lower right shows
23 federal spending on bike ped, and boy, look at how
24 it went up after ICE-TEA, but it's still a drop in
25 the bucket. It's still less than 1 percent of all

1 the federal spending.

2 Change the price of driving; and you're
3 familiar with all these tools that has to be part
4 of what pricing does. Marginal cost utility
5 pricing. Parking cash-out, more aggressive
6 parking cash-out. Pay-as-you-drive insurance.

7 And here's the last slide, and that's
8 the first step, a good place to start. And I
9 think this is probably the only slide you really
10 wanted. Thinking about it, this is what I think I
11 would do if I were czar.

12 With the bond money, the Governor's
13 strategic growth infrastructure bond money,
14 there'd be no highway funding. When I looked at
15 the bond funds I found that about 20 million,
16 almost half, could be used for highway capacity
17 expansion.

18 I say no highway funds for high-
19 performance highways without tolls. If you toll
20 them, that's different. And toll roads revenues
21 would be diverted to other modes, so you can fund
22 a lot of transit and equally important bike/ped.
23 And the connector roads would truly have to be
24 those high-performance roads, limited access, so
25 you don't get development around each of the

1 interchanges.

2 The other bond funds would be directed,
3 as in Maryland, to priority funding areas that
4 have adopted, actually adopted Oregon-like growth
5 controls, Maryland-like density transfer
6 mechanisms, and Florida-like adequate public
7 facilities requirements.

8 Thank you.

9 PRESIDING MEMBER PFANNENSTIEL: Wow.

10 Thank you. Thank you for going through so much so
11 rapidly. Some of the numbers, I know, are yet to
12 be finalized in your paper; but I also know that
13 some of them are indicative and directional rather
14 than precise.

15 But as I'm looking at your examples of
16 what has worked well, have you done estimates
17 there? Have you checked, for example, in Oregon,
18 around Portland? Because that's a long-term,
19 they've been working on that for years. And so
20 how do you get sort of a benchmark of what it
21 might have been, and how you look at it now? And
22 I'm actually getting to this question of dollars,
23 you know, how many dollars have you put in there
24 as opposed to something else.

25 I imagine that at least the local people

1 have done some of those kinds of analyses. What
2 are they finding?

3 DR. EWING: There have been a number of
4 academic studies. Chris Nelson has studied
5 Portland and compared it to other places.
6 Carruthers did a comparison of growth management
7 in different states and said Oregon has a more
8 compact pattern than it would have had otherwise.

9 I know the people in the LUTRAQ study,
10 which was actually a simulation, as you know,
11 growth with LUTRAQ versus growth with sprawl.
12 And, you know, produced numbers on the order I'm
13 talking about.

14 And then there's a lot of anecdotal
15 evidence. And the anecdotal evidence is generally
16 supportive of what I'm saying.

17 The rub has been the price of housing.
18 There's been a question about whether the effect
19 of limiting the supply of land basically through
20 the urban growth boundary has driven up the price
21 of housing. And I think that has been dealt with
22 now pretty well. That was an effect that I think
23 is more demand side than supply side. And there
24 have been a couple of studies of that.

25 My work, I think the answer to your

1 question is kind of a qualified yes, and maybe a
2 qualified no. I don't think even Nelson's work,
3 comparing Portland to Atlanta, was done
4 necessarily at the level you would want to see it.

5 What we've done is cross-sectional
6 comparisons where we have a much larger sample of
7 counties and much larger sample of metropolitan
8 areas. Feeling that one really can't go too far
9 with a sample of two, Atlanta versus Portland.

10 I can tell you that one example, this
11 article that I'm still bristling over, it's going
12 to be in JAPA in August. And I can understand
13 putting something out there, you know. And we've
14 got -- Steve Winkelman from the Center for Clean
15 Air Policy will be writing the reply, or the
16 response to it.

17 But basically this article said what if
18 Portland-like growth shares were applied to other
19 metropolitan areas, what would you find. And that
20 was the 6 percent reduction in VMT that I alluded
21 to before.

22 But, what the author, who will remain
23 nameless, did not do is apply Portland-like
24 densities and a Portland-like mix and a Portland-
25 like, you know, transit and so on, to these other

1 metropolitan areas to come up with the 6 percent.

2 I think that is work worth doing if your
3 staff has the time or you have consultants
4 available, to make those comparisons. I think one
5 can do it. We can see -- I would start with the
6 basic equations that we've developed for
7 metropolitan areas. And see how far off the line
8 Portland is -- off the regression line.

9 PRESIDING MEMBER PFANNENSTIEL: My other
10 question is perhaps even more difficult than this.
11 But when you look at the recent patterns of growth
12 in California and you look at, you know, the
13 Inland Empire, places where we have very tight
14 residential development in terms of not density in
15 multi-family homes, but you have, in fact, single
16 family homes, but in developments that are
17 uniquely there and with commercial someplace else
18 and schools someplace else.

19 I understand that a lot of what we're
20 talking about is new planned growth for a further
21 100,000 homes a year. But what do you do -- is
22 there anything you do with those that currently
23 exist? Is there any hope for bringing down the
24 VMT associated with that development that's
25 already there?

1 DR. EWING: I think there is hope. The
2 Inland Empire was the most sprawling metropolitan
3 area in the country when we did our -- when we
4 developed our indices. And as I recall it was
5 sprawling not so much because of density, but
6 because of land use mix, lack of mixing of land
7 use. And the lack of centers, strong centers,
8 ala, you know, the Portland centers, Grisham and
9 Hillsborough and downtown Portland.

10 And possibly also street
11 interconnectivity, which is another thing we
12 measured. I can't remember if that was one of the
13 factors that really discriminated against
14 Riverside and San Bernardino.

15 But I think the key, if you have auto-
16 oriented development, is to get the nonresidential
17 as close as possible. I guess in the ideal we'd
18 like people to use alternatives to the automobile,
19 but we're a lot happier with a short auto trip
20 than we are with a long auto trip.

21 And the places I've looked at, unlike
22 some of the principal scholars in California,
23 Cervero for example, has always been interested in
24 handy, it's always been interested in these very
25 very transit-friendly places.

1 I've looked a lot more at auto-oriented
2 places, just to see what you gain if you have a
3 decent land use mix. If the closest shopping
4 center is a shopping center that offers a lot of
5 activities, not just groceries. Okay, so it's a
6 real center. Or it's a lifestyle center that
7 offers even a pedestrian environment. And it's
8 not very far.

9 So, it's one auto trip out; and the one
10 auto trip is a mile and a half, rather than four
11 auto trips that each are two miles. And you get
12 pretty big numbers from that. I took the slide
13 out, but my first study in 1994 was in Palm Beach
14 County. And the difference -- which is all auto
15 oriented; there really is no transit to speak of -
16 - and the difference between the very sprawling
17 places that didn't have the land use mix and had
18 lower density and West Palm Beach was about a
19 third, as well, in terms of VMT per household.

20 Controlling for socioeconomics, always.
21 We took middle-income households and we said how
22 much are they traveling if they live in, you know,
23 East Boca or West Palm Beach versus one of the
24 outlying subdivisions.

25 PRESIDING MEMBER PFANNENSTIEL: That's

1 very helpful; thank you very much. We really
2 appreciate your being here.

3 MR. BARTHOLOMY: Thank you, Dr. Reid. I
4 think he gets the award for having come the
5 farthest of any of the speakers. He flew in from
6 Atlanta just last night, and I believe is flying
7 back out to Washington, D.C. today. So we really
8 appreciate you putting us into your very busy
9 schedule.

10 The next speaker we have coming up is
11 Bob Wilkinson from the University of California at
12 Santa Barbara where he's the Director of the Water
13 Policy Center. We're very excited to have him up
14 here to speak. I never had the pleasure of
15 hearing him speak before, and I asked what kind of
16 speaker is he. And someone described him as
17 spicy.

18 (Laughter.)

19 MR. BARTHOLOMY: So I'm very much
20 looking forward to this presentation. Dr.
21 Wilkinson.

22 DR. WILKINSON: Let me just start by
23 complimenting the Commission, and by that I mean
24 the Commissioners and the staff on this whole
25 approach of integrated planning.

1 I had the pleasure of being involved in
2 the last round when the Commission took up, in
3 particular, water, linked to energy and the
4 implications. This time obviously we're dealing
5 with land use planning and tying in. At least
6 I'll try to tie in some of the water dimensions to
7 energy, climate. I think this is very helpful and
8 it's making a big difference in California.

9 And I'm going to, in the two and a half
10 hours that Panama gave me for this --

11 (Laughter.)

12 DR. WILKINSON: -- try to cover four
13 points. Just briefly, this energy intensity of
14 water, why this is important to bid on the water/
15 land use connection.

16 I'm going to zero in on a specific case
17 study which happens to be the Inland Empire for
18 just the reasons you cited, Commissioner, the
19 sprawl and density issues, but the overall growth
20 rate. And try to tie that into water and address
21 the question of what we might do about emission
22 reduction through energy efficiency by looking at
23 water as part of the mix.

24 So, let me start with the continental
25 scale planning issue, and I'm actually serious

1 about this. This is from about 50 years ago when
2 a lot of this stuff that we're talking about was
3 planned. This is North America; this is the
4 collection region for water supply for North
5 America. These are serious plans from about 50
6 years ago.

7 This is just the water transfer region.
8 That's the Portland area we're talking about.
9 We're just moving the water through that.

10 Here's the water distribution area on
11 down into Mexico. And here's the plumbing system
12 for that. This is the North American Water and
13 Power Alliance. This was a water and energy
14 planning process from mid-century.

15 Why is this important? Well, because
16 our water infrastructure and our planning logic
17 very much was framed by this kind of thinking 50
18 years ago. And we're dealing with a lot of the
19 residual of that in land use planning, water
20 planning, energy planning and so forth.

21 Here's the intensity of withdrawals of
22 water across the U.S. This is withdrawals, not
23 consumption. You'll notice on the right those
24 tend to be power facilities; those are once-
25 through cooling. In the west, of course, it's

1 different; it's mostly for irrigation.

2 Here, as a quick case study, just
3 showing the energy that's in the water to get to
4 the point I want to make about the opportunities
5 for land use planning and recharge. Taking the
6 State Water Project, the one that's been in the
7 news lately because of issues with the pumping up
8 here in the Delta, there's a whole series of
9 pumping plants to move that water south to where
10 it's used.

11 And if you go through that and do the
12 arithmetic, starting at the Delta, going down this
13 is the east branch going up over the Tehachapi
14 Mountains and down to the Inland Empire area.
15 We're looking at energy intensities that exceed
16 5000 kilowatt hours per acrefoot. I'll do a
17 little comparison for you. But that is in excess
18 of ocean desalination right now.

19 This is the west branch. This is the
20 coastal branch. These are also quite energy
21 intensive, but this is the most energy intensive,
22 so that's why I'm going to focus on the area.

23 A little quick comparison here. This is
24 kilowatt hours per acrefoot of water. And a whole
25 series of sources. Now, focusing on this area,

1 here's efficiency coming in at zero. Some would
2 argue net negative, but we'll just leave it at
3 zero.

4 This is water re-use including with
5 reverse osmosis technology for treatment, and a
6 series of groundwater options. Again, all the way
7 up to -- and these are real numbers for real
8 operations -- groundwater with reverse osmosis.
9 These are both in the Inland Empire area.

10 Now, the red bars are the import
11 systems. About 2000 for the Colorado River
12 aqueduct. And then different parts of the State
13 Water Project system, including those two bars
14 that exceed 5000 kilowatt hours per acrefoot. And
15 that is for that far extension of the east branch
16 of the state project.

17 And here are a couple of different
18 numbers. My guesstimate for the Governor's desal
19 task force on ocean desal and some engineering
20 numbers right now for west basin for ocean desal.
21 But it's somewhere in this noise, and it's
22 clearly, at this point, already below what we're
23 doing.

24 The point of that is we've got over-
25 allocated systems and we've got varied energy

1 intensive water in some areas. It's pumped
2 through systems like this; this is the State Water
3 Project going down by I-5.

4 But, a great deal of our water -- this
5 is California's total water pie -- is groundwater
6 and local projects. In fact, all of southern
7 California, if you take Ventura all the way to
8 Mexico, about half the water is local water
9 supply. The other half is imported, about a
10 quarter from the north, about a quarter from the
11 Colorado River roughly.

12 That's the state project; that's about 7
13 percent of California's water. In the news lately
14 the press has often mischaracterized what that
15 wedge looks like. But this is from the Department
16 of Water Resources, and there's the federal
17 projects and there's the Colorado River.

18 So we need to focus, for energy and
19 greenhouse gas emission purposes, on opportunities
20 in these larger areas.

21 One more bit of datapoint for the water.
22 This is the California bulletin 160-05, the state
23 water plan. And this is for the next quarter
24 century. These are the water supply opportunities
25 that we're looking at for California.

1 The largest opportunity for new water
2 supplies for the next quarter century is water use
3 efficiency in the urban sector. Water use
4 efficiency. Over 3 million acrefeet per year.
5 Dropping down to about 2 million on the upper bar,
6 those are the minimum estimates and sort of the
7 high-end estimates.

8 You go with efficiency is the largest.
9 Then to groundwater, that's the one I'm going to
10 address today. And then to recycled water, and,
11 in fact, if you look at the bright blue bars
12 below, recycled actually comes out more. It's
13 about a million acrefeet.

14 Those are all well in excess of the big
15 fights that you're reading about over dams and
16 other opportunities. So just leaving those more
17 contentious options aside, let's zero in on the
18 efficiency options.

19 The quick water split. Here's about 20
20 percent for urban; about 77 percent for
21 agriculture. So out of that 20 percent, out of
22 that smaller slice comes the largest new water
23 supply in California, which would be the
24 efficiency option.

25 Breaking that down, here's the urban

1 use. If you look at single family plus multi-
2 family, you're looking at about two-thirds of it.
3 And then there's a breakout for the single family.
4 About half of that is for outdoor. That varies.
5 In San Diego you'll hear later today on case
6 studies looking at different parts of the state,
7 probably in excess, probably 60 percent, I think,
8 in the Inland Empire is closer to 60 percent is
9 outdoor use. Partly because we got more efficient
10 inside, but we still have a long way to go.

11 So, here's our big opportunity. This is
12 our sophisticated irrigation kinds of systems
13 throughout California, not just southern
14 California, I should say. And here's cheap, quite
15 cost effective opportunities for the efficiency.

16 So I didn't, especially in case Art
17 might have been here, I didn't want to miss the
18 efficiency piece first, because it really is
19 critically important, using the water efficiently
20 in all kinds of purposes. Even going through high
21 tech, this is reverse osmosis technology to treat
22 water, groundwater and recycled water.

23 Next is the reclaimed, and I'll just
24 point this out. The purple pipe, which is the
25 symbol for reclaimed water. This is urban

1 wastewater treated all the way to potable levels,
2 but not used for potable purposes. Used for
3 landscape irrigation, the oil refineries in
4 southern California and so forth.

5 But the big one I want to zero in now is
6 recharging groundwater. This is our sophisticated
7 trapezoidal channel system and stormwater runoff
8 which is creating all kinds of pollution problems
9 and so forth. But it's also foregoing major water
10 recharge options.

11 So, here is the Inland Empire. And this
12 is a particular part of it, the Inland Empire
13 Utilities Agency that I'm going to zero in on for
14 data. This is what that looks like. This is the
15 watershed; this is the Santa Ana River coming down
16 from the mountains by Big Bear, down in Huntington
17 Beach.

18 This is the choke point with Prado Basin
19 as it comes through that; very rich groundwater
20 basin in this area. And it goes on up further.

21 And this is the land use picture. So,
22 1933, those are vineyards in blue and orchards and
23 so forth; and the red is the paved area in 1933,
24 '57, '75, '93. I don't have the 2007 snapshot,
25 but most of this dairy preserve now is shifting to

1 bright red. And the little remnants here. So
2 it's pretty much a complete red zone throughout
3 the whole basin.

4 That's what it looks like when it rains.
5 What we've got now is instead of groundwater
6 recharge when we have precip events -- keep in
7 mind this is a significant part of the water
8 supply in that basin -- instead it's flushing down
9 the streets and creating pollution problems.

10 So I won't read through all this. I
11 think these are in the handouts. But the hard
12 surfacing. We're looking at probably, and this, I
13 think, is conservative, 40,000 acrefeet per year
14 that we're losing that we could be capturing.

15 I'll try to translate that to energy,
16 and then to greenhouse gas emission benefits. But
17 it looks like a simple, and I think, conservative
18 bottomline would be about 2250 kilowatt hours per
19 acrefoot would be the differential between
20 importing that water versus capturing groundwater
21 and pumping and treating it. That's the
22 differential.

23 So a pretty hefty opportunity in terms
24 of the benefit of every acrefoot of water that can
25 be captured and recharged.

1 Going to this graph -- it's the only one
2 I'll show you -- but going through from I think
3 that's 1920 to roughly present, the trend line is
4 important. What we've got is the discharge in the
5 bars; that's the runoff. And this is departure
6 from the mean, call that precipitation.

7 So even with high precip events very low
8 runoff until we got to the point where we started
9 really paving that, as those charts turn red. Now
10 even modest precip events translate into very
11 major runoff. And that's because there's too much
12 hardscape and not enough opportunities for
13 recharge.

14 Now, this is the Inland Empire Utility's
15 own words. Working with them and I wanted to
16 reflect their view, not just an academic's view of
17 what's going on here. So big picture: imported
18 water, they're looking at increasing conflicts;
19 many of you are aware they just shut down the
20 pumps for the State Water Project because of take,
21 killing of endangered species. Been quite an
22 issue, and it's not an issue that's going to go
23 away quickly. Drought impacts, increasing costs;
24 they've got water quality considerations that are
25 already taking climate change into account.

1 Concerned about what that will mean for water
2 supply. The energy implications are on the radar
3 and infrastructures aging. So all these are
4 factors.

5 About 70 percent of the water supply in
6 that area is local water now. Seventy percent in
7 that basin. That's a very rich groundwater basin.
8 So working your way all the way down that Santa
9 Ana watershed it's a significant water supply.
10 About 30 percent of the water they're using is
11 imported from State Water Project. They don't use
12 any Colorado Water in that basin because it's too
13 salty; it'll mess up the sale balance in the
14 basin.

15 They're looking, by 2025, so roughly 20
16 years out, to move that up to 80 percent through
17 local sources. One of the fastest growing areas
18 in the country and they're still figuring they're
19 going to move up to 80 percent, an increase in
20 reliance on local sources, instead of imports.

21 But that includes recycling, the
22 recharge and improving efficiency as part of what
23 they're doing. That's a pretty remarkable plan,
24 and that's their numbers.

25 They're looking at a groundwater basin

1 of millions, 5 to 7 million acrefeet. This is a
2 very large groundwater basin, but not unique. The
3 San Gabriel just to the north is also a rich
4 groundwater opportunity, as is the Los Angeles
5 River watershed. So we've got the entire basin as
6 an opportunity for the kinds of things I'm
7 describing.

8 They figure about a million acrefeet of
9 unused storage capacity; and they think they've
10 got a safe yield of about 140, but they think they
11 can bump up probably about 40 to 50,000 acrefeet a
12 year of additional groundwater reliance if they
13 tap it.

14 Here's a little breakdown of the water
15 supplies locally, including conservation,
16 projected forward. But recycled water, fairly
17 aggressive recycled water opportunity.
18 Groundwater production, and then desalted ground
19 water. That's taking water with nitrates and
20 salts and running it through reverse osmosis,
21 which they're already doing. And providing that
22 as high-quality potable water supply for
23 communities.

24 So, again, they figure with replacing
25 imported water, counting all the energy that goes

1 into pumping and treating that groundwater, even
2 with RO, is getting up to 225,000 megawatt hours
3 per year of savings by shifting over to the
4 groundwater.

5 There's the basin and where the recharge
6 opportunities are. In particular, this is that
7 wonderful alluvial fan, and that continues on to
8 the San Gabriel and so forth. So the upper part
9 of the watershed is where the focus is.

10 This is the kind of existing
11 conventional dig-a-pit and try to perk the water
12 into it. This is where we get the land use
13 planning. So much more could be done with
14 decentralized opportunities to move water into the
15 groundwater system. And with the right kind of
16 vegetation in the root zone soils and so forth
17 that picks up the waste and silt and so forth, so
18 it attenuates the pollution problems and gets the
19 groundwater recharged. It could be quite
20 attractive.

21 And rain gardens. These are in
22 different places, but here's the idea of the kinds
23 of things that they're exploring to do.

24 This is one from the Chino basin. Very
25 attractive fenceline here. But this is actually

1 runoff from the road into a swale that was
2 engineered on public property. And this is brand
3 new, so it hasn't grown in at all. But the idea
4 is all the water from the road drops into this and
5 then gets recharged through the system there,
6 rather than running off in the typical storm
7 drain.

8 This is the platinum building that's the
9 headquarters for Inland Empire. This is all
10 permeable concrete. Here's conventional, here's
11 permeable side by side. And you can take a bucket
12 of water and pour it on that and it drops straight
13 through. So you get the urban heat island effect
14 of a lighter surface, and you get full
15 permeability.

16 They're looking now at using this for
17 lots of applications, including gutters and
18 parking areas and so forth, as a way to pick up
19 that stormwater flow and drop it in to recharge
20 the groundwater, rather than run it off.

21 Bottomline, what does this mean for
22 California in terms of the water-side of the
23 equation? Well, here's kind of business-as-usual.
24 Here's with a bit of planning.

25 But here's, during drought years, what

1 they are publicly saying they'll be able to do
2 2005. They'll be able to roll it completely off,
3 imported water, for at least this period of time
4 if they implement all the things that they're
5 looking at doing with recharge and recycle and so
6 forth.

7 That takes the pressure off of some of
8 the systems that are already stressed, which for
9 other reasons in California, might be very
10 helpful. But that slide doesn't pick up the
11 benefits to energy and the associated greenhouse
12 gas emissions of not having to pump all of that
13 water in the first place.

14 So, let me stop there. And I hope I
15 have a few minutes to take some Q&A. Thank you.

16 PRESIDING MEMBER PFANNENSTIEL: Thank
17 you, Dr. Wilkinson. Now you focused here on
18 Inland Empire, I assume as an example of sort of
19 one of the toughest nuts to crack in terms of the
20 way the land is being used today.

21 And yet they're pretty optimistic about
22 how they can handle the water in the future. Have
23 you looked at, or is there comparable sorts of
24 examinations of other parts of California --
25 clearly one of the advantages there is that they

1 have so much groundwater to work with.

2 DR. WILKINSON: That's true. So,
3 groundwater opportunities are not equal everywhere
4 in California. Certainly major parts of
5 California there are major opportunities.

6 For example, in San Diego there's less
7 in terms of the groundwater recharge opportunity
8 just because of the geology, but there's some.
9 But catching it and recharging where it's possible
10 would make a big difference.

11 I want to make sure this is in the
12 context of what you did a couple of years ago in
13 the last round of IEPR, which is the efficiency
14 opportunities, which the PUC is muddling through
15 trying to develop processes where we can invest
16 more in the opportunities to use water more
17 efficiently and get the energy benefit.

18 And were looking hard at the recycled
19 opportunities, because every acrefoot we recycle
20 and then not have to import is an energy savings.

21 What we've missed so far in terms of
22 policy approach isn't really quantifying the
23 opportunities, these are rough calculations, but
24 very promising ones, is what we could do with
25 recharge, even if it is only in the Santa Ana/San

1 Gabriel/L.A. watersheds.

2 That's a significant chunk of the
3 state's population in the areas of growth and so
4 forth. And I should say, this is not just for new
5 construction. For land use planning purposes a
6 lot of this could be for retrofit. Going back and
7 looking at ways to retrofit parking lots,
8 roadscape. We have to do it anyway on a cycle of
9 every 15, 20, 25 years depending on what the
10 system is.

11 So looking for those opportunities
12 through incentives, through programs that would
13 capture and recharge stormwater instead of just
14 running it all off, looks like we've got some
15 pretty significant greenhouse gas emission
16 benefits coming through that energy.

17 And that's what we haven't quantified so
18 far, so that's the -- this would be the third
19 piece of that puzzle, efficiency, reuse and then
20 recharge.

21 PRESIDING MEMBER PFANNENSTIEL: It seems
22 like the technology opportunities are there, also.
23 The permeable concrete is pretty exciting. And I
24 would expect that in, you know, whether it's home
25 irrigation systems or whatever else, there are

1 probably some opportunities that are being
2 developed there.

3 DR. WILKINSON: That's right. You know,
4 one of the reasons I'm excited about your
5 integrated planning approach is that you're
6 integrating more and more as you go along. And
7 that's what's needed.

8 We have many communities that have laws
9 that prohibit doing what we're describing for
10 parking lots, for example. They require a curb
11 and a planter that's up. So you get the urban
12 slobber by irrigating, you know, the landscape and
13 it runs off. So, we're creating more problems and
14 it's actually illegal to do it right because we
15 just haven't thought it through.

16 So part of the integrated planning
17 process is land use planning right down to the
18 local level to understand the benefits. That
19 could be incentive programs, that could simply be
20 educational workshop programs. But people really
21 haven't thought about the emissions and the energy
22 benefits on top of TMDLs and -- and all the water
23 side that people have focused on.

24 PRESIDING MEMBER PFANNENSTIEL: Thank
25 you.

1 MR. BARTHOLOMY: Thank you very much,
2 Dr. Wilkinson. And you've printed a ton of
3 information there. I know that folks will take
4 away more from that than just your urban slobber
5 comment.

6 (Laughter.)

7 MR. BARTHOLOMY: We are moving ahead in
8 the agenda to a section we're terming alternative
9 scenarios. The first part of the staff draft
10 report, and the first part of the workshop is
11 really focused on examining the different impacts,
12 the different development patterns on energy and
13 climate change.

14 And now we're moving into what are some
15 alternative scenarios beyond business-as-usual.
16 And here in California we don't have to look too
17 far to see some of those alternative scenarios.
18 We have some excellent leadership going on at our
19 regional levels and our local levels.

20 We're also going to be bringing in a
21 speaker to talk about the national perspective;
22 what's going on in other states; and opportunities
23 at the federal level, as well.

24 So, we're moving into a conversation
25 about blueprint planning. A few years ago the

1 State's Business, Transportation and Housing
2 Agency started a blueprint planning program,
3 giving out grants to regional planning
4 organizations to help them come up with growth
5 scenarios that could better account for the
6 housing and the transportation needs; better
7 connecting land use impacts -- land use planning
8 with transportation planning.

9 And we have two of the leading
10 metropolitan planning organizations around this
11 effort coming up to speak to us today. So I'd
12 like to welcome the first speaker, Mike McKeever,
13 the Executive Director of the Sacramento Area
14 Council of Governments, to come up and tell us
15 about the Sacramento blueprint. Good morning.

16 MR. McKEEVER: Good morning. 'Morning,
17 and thank you for the invitation. I wasn't able
18 to be here for Reid Ewing's presentation, but my
19 spies have told me what he said. And I think this
20 will be a nice sort of practical example of some
21 of the empirical and theoretical research and
22 modeling that Reid has been leading in the
23 country.

24 SACOG is a six-county metropolitan
25 planning organization and council of governments

1 with 22 cities, and a little over 2 million
2 people. You can see the geographic spread of the
3 agency there.

4 What we call our blueprint was adopted
5 by our 31-member board, unanimously, about a year
6 and a half ago now. It does have a map, a very
7 detailed map, although it's intended to be taken
8 at a conceptual level in implementation. And it
9 really, the meat and substance of it is really a
10 set of growth principles.

11 We are definitely using it to the update
12 of our regional transportation plan; the board
13 passed a draft of that out last Thursday. And
14 we're very carefully coordinating with Sacramento
15 Air Quality Management District, the Air Resources
16 Board and the other air districts in the region in
17 the update of this MTP. Really for the first time
18 ever we've been able to very carefully integrate
19 it with the update to the SIP.

20 So we've learned a lot during that
21 process. And I think the synergies we've been
22 able to create through that have been very
23 beneficial for all concerned.

24 Blueprint planning is basically scenario
25 planning, long-range growth management planning.

1 In our particular region we had a forecast from
2 Steven Levy that we would add pretty close to
3 another 2 million people through the half-century
4 mark. That growth driven by a projected increase
5 at about a million jobs, and creating need for a
6 little over 800,000 new dwelling units, shelter
7 for those workers.

8 What we now have taken the term and
9 labeled them blueprint principles, are, to be
10 fair, more commonly known as now smart growth
11 principles around the state and around the
12 country. The dominant two are the first two, at
13 least for our region. And they have to do with
14 providing a much greater variety of housing choice
15 in the market in the future than we've had in the
16 recent past, at least the last few decades, and
17 providing a much greater range of transportation
18 choice than we have been able to provide in the
19 past. And, of course, that means providing
20 options to single occupancy car use.

21 The next five are sort of the design
22 principles or land use concepts that drive those
23 changes in travel behavior. More efficient use of
24 the land, and more in-fill development, and
25 purposely putting houses and jobs, shopping, close

1 together instead of far apart, doing good design
2 work and protecting ag lands and high-value
3 natural resource lands.

4 What I'm going to try to do in this sort
5 of quick blueprint story is tell you the story of
6 how the blueprint happened. Because I think the
7 numbers are important, but the political dynamics,
8 I think, are also very important.

9 And we're well aware that there's a lot
10 of skepticism, in some places just rank cynicism
11 about that you just can't change the land use
12 pattern. Californians are auto-oriented; some
13 people somehow think it's in our DNA now that we
14 don't know how to do anything other than travel in
15 cars. You see those headlines all the time.

16 And that local land use officials are
17 sort of narrow-focused and influenced by the
18 development community, and just are going to keep
19 doing in the future what's been done in the past.

20 We don't believe any of that, and we
21 think our blueprint process sort of puts the lie
22 to those pessimistic assumptions about our future.

23 We, very purposely, went out in the
24 field from the very start of the process. We knew
25 the best technical study would be worthless. And

1 so we put the technology in the field with the
2 citizens. We worked with Valley Vision, a great
3 civic partner locally; put a lot of people in the
4 seats of these workshops that my board had never
5 seen before. They were very impressed by that;
6 not just all the usual suspects. Lots and lots of
7 new faces. Very wide diversity people from the
8 business and development and property-owner
9 sector, as well as the citizens housing,
10 environmental sector.

11 And through the use of the PLACE3S tool,
12 which, of course, you're well familiar with, at
13 the Energy Commission we were able to marry the
14 best of science with the best of citizen
15 involvement and put interactive computer
16 technology in play at every single workshop we
17 did. So that people could experiment with ideas
18 and understand what the long-term tradeoffs of
19 those ideas were in terms of transportation, air
20 quality and land use impacts.

21 After we went through about 60 workshops
22 we pulled everybody together. At the end of the
23 project, we were looking at four different
24 versions of the future of the region. Maps on the
25 table; clickers on the table so that people could

1 cast their votes. Very very dynamic important
2 event, sort of in at least the history of the
3 region as far as SACOG's involvement in it has
4 been.

5 And after we were done with that broad-
6 based citizen input, then we did what we're pretty
7 sure was also a first-of-a-kind event, which is we
8 invited all 144 city council people and county
9 supervisors from our 28-member governments to come
10 together to look at the draft plan and tell us
11 what they liked and didn't like about it.

12 In simplest form, this map and the one
13 that follows, tell the story. This is the urban
14 footprint of the Sacramento region at the half-
15 century mark if we keep growing in the future as
16 we have in the past.

17 And the dark red shows where new
18 urbanization would occur. And those of you
19 familiar with this region will know some things on
20 that map, unless you're unlike 99.9 percent of the
21 thousands who have given us feedback on this map
22 won't look very pleasant to you. Lots of farmland
23 converted; lots of wetlands and vernal pools and
24 oakwood stands converted to urbanization.

25 That is the footprint of the map that

1 the board adopted. You can sort of look at the
2 difference in red. Gives yo a sense of how much
3 more compact the urban form is. It's the exact
4 same number of people, 1.7 million new people, a
5 million new jobs, 840,000 new dwelling units. And
6 that is the difference.

7 And that's sprawl and that's compact
8 regional urban form. And that difference, along
9 with a bunch of substories when you winnow into
10 the more detail, drives the issues that Reid was
11 talking about in terms of reduced vehicle miles
12 traveled, more transit use, cleaner air, all of
13 those things. That's the simple version of what
14 the story is on the technical side.

15 Every region is different. One of the
16 reasons that you see different numbers from
17 different agencies around the country is that
18 their configuration is different. Some people
19 have oceans to deal with; some people have rivers
20 and mountain ranges; and everyone's got their own
21 unique set of circumstances.

22 In our case, what we concluded made the
23 most sense over time is that our urban core would
24 be much bigger than the city of Sacramento. It
25 would go to West Sacramento, even up into inner

1 southwest Placer County, City of Roseville, down
2 to Elk Grove.

3 And then there would be sort of what a
4 planner might call satellite cities or nodes or
5 villages around the region, each with a unique
6 flavor, all of them hopefully separated from each
7 other and from the urban core by farmland, natural
8 resources, et cetera.

9 Here are the numbers of what those sort
10 of red and pink maps show. We use more than 350
11 square miles less land for future urbanization
12 with the blueprint than with the baseline trend
13 scenario, more sprawl growth pattern. Think about
14 what a big number that is. That is a huge number.
15 that is a lot of land.

16 Some of that land is agricultural land
17 that doesn't need to be converted to urban uses.
18 A lot of it is resource lands. I'm giving you the
19 skinny version of the slide show, but, of course,
20 there's lots more -- some here have probably seen
21 the more boring version. There is a longer
22 version.

23 I want to focus on the housing issue.
24 About 80 to 85 percent of the land area in any
25 local government general plan, if you look at it,

1 is devoted to housing. That's what takes the
2 space. And so we knew we had to pay a lot of
3 attention to that issue.

4 First lesson was, you know, people think
5 that subdivisions cause growth. Not true.
6 Subdivisions are responding to growth, and they're
7 responding to what most would consider the good
8 aspects of growth, which is a growing economy and
9 more jobs. And so we need to have houses and
10 shelter for the -- if we want job growth and we
11 want economic vitality, we got to have a place for
12 those people to live.

13 We all know that some other regions that
14 are more urban than Sacramento, at least today,
15 have not done as well with keeping up with that as
16 they would like. And so there are a lot of people
17 in the Bay Area who can't find shelter, and so
18 commute sometimes more than 100 miles to their
19 job. Same is true in some of the southern
20 California markets.

21 So, we're trying very hard, since we
22 have the luxury of watching those patterns, to try
23 to not repeat those patterns here as we turn,
24 also, into a more and more metropolitan area.

25 This is a complicated chart and I'll

1 simplify it, but we segmented the housing market
2 into about 15 different product types. They're
3 consolidated up into four here.

4 We went to the BIA and the Chamber of
5 Commerce and asked them to raise money to do a
6 market study of current day market preferences for
7 housing. And then Steven Levy did a demographic
8 study of where the population was going in the
9 future, which is a strong aging phenomenon. And
10 we connected current-day preferences by segment of
11 the market with where the population was going to
12 the future to figure out what kind of a housing
13 stock we needed.

14 And these numbers, the second and the
15 third lines, show in 2050 the new stock added to
16 the existing stock. And so in the basecase you
17 see a declining share of attached product, and a
18 declining share of a very small amount of small
19 lot single family; and dominated by the large lot,
20 and to a lesser extent, the rural residential.

21 In the adopted plan you can see the
22 attached product is growing, both for sale and
23 rental, and the small lot single family product is
24 growing a lot.

25 Now, I don't have the chart in this

1 show, but if you pull this chart apart and you
2 just looked at what are the product types for the
3 growth, the housing growth in the region, the
4 message simplifies a bit.

5 And what happens is between this kind of
6 product, small lot single family, and this kind of
7 product, attached for sale, and they're not all
8 two stories, some are three- and four-story, and
9 even a few are, you know, 53, I guess, 40-story
10 condos now. But most of them are in this two-,
11 three-, four-story format.

12 The basecase pattern was building a
13 third of the market in either this or this. The
14 blueprint scenario calls for two-thirds of the
15 future to be either that or that.

16 And so it flips it around. Put it
17 another way, the large lot, instead of being two-
18 thirds, our go-to product, becomes our one-third
19 of the market product. It doesn't stop entirely.
20 You still need executive housing and et cetera.
21 But it becomes the minority.

22 Now, we thought when we adopted the
23 blueprint that maybe over a decade we might ramp
24 into those numbers. It took two and a half years
25 to get there. I looked at the numbers about ten

1 days ago. And in this market, over the last six
2 months, two-thirds of the new home sales have been
3 either attached for sale or small lot single
4 family.

5 So this is a wonderful confluence of the
6 market forces and the policies and the attitudes
7 changing at the local government level where more
8 and more of our members, planning commissions, et
9 cetera, are seeing that good planning does not
10 mean when a developer comes in you strip out, you
11 know, 50 percent of their housing units and
12 declare victory. Good planning means you put
13 higher density products where they need to go.
14 And if you have some pushback from the community,
15 you know, you keep your eye on the ball and make
16 sure you get those projects approved. We're not
17 batting a thousand, but we're doing pretty darn
18 well.

19 Now here's a photo simulation of what
20 those kinds of housing products look in a
21 transportation corridor. We have miles and miles
22 and miles of these kinds of arterials in our
23 region. And I know they're all over the state.
24 Under-utilized, borderline blighted, lots of
25 pavement, lots of space for cars, not much else

1 going on.

2 So, the formula is if the public can
3 come in with investment in infrastructure, and the
4 classic is streetscape kind of things, better
5 sidewalks and onstreet parking and landscapes
6 medians and street trees and nice lamps to send
7 the signal to the private sector that the public
8 agencies want your investment here. It sends the
9 signals to the investors that the welcome mat is
10 out here. And then you start to stimulate
11 investment.

12 And in this corridor you have, in terms
13 of scale, two-, three-story, mixed use structures.
14 And to someone wanting to integrate land use and
15 transportation planning, that's a very pretty
16 picture. You've got cars, you've got room for
17 bicyclists, you've got onstreet parking, you've
18 got shoppers, you've got housing and office on top
19 of very active street retail. That's what we're
20 trying to create in a lot of places in the region.
21 And some of it's through in-fill and
22 revitalization. And some of it is in building
23 these kinds of new greenfield developments, as
24 opposed to a more classic suburban pattern.

25 Now, in terms of vehicle miles traveled,

1 the reason there's three scenarios here is a
2 couple months ago we were still looking at three
3 alternative plans on our RTP update. But, you can
4 see that the numbers are the point here.

5 Vehicle miles traveled per household in
6 all three of those plans went down in ballpark
7 terms 10 percent. That's a per-household number;
8 it's not an absolute number. VMT absolute is
9 still going up because we've got more population
10 increase than we have reduction.

11 But that makes a big difference. That
12 number is approximately equal to what you can
13 expect in terms of emissions reductions, as well.
14 It's a little different depending on which
15 pollutant it is, and which year you're talking
16 about, and how much energy engine technology
17 change you forecast.

18 But we're showing, at least for small
19 particulates and for carbon dioxide, a very
20 similar sort of a pattern.

21 So where we are with the blueprint,
22 we're two and a half years in. We're updating our
23 RTP. We've taken the 2050 blueprint map. We've
24 worked with all our members and our board, and
25 they've unanimously adopted a 2035 version of that

1 map, which we're pretty confident will meet the
2 federal rules, which the test is we have to show
3 that it's the most likely land use pattern to be
4 built in the region.

5 And we have a draft plan out on the
6 street for review. In three or four months we'll
7 have a final plan. We're still waiting for our
8 budget numbers on the air quality side, but we're
9 crossing our fingers and hoping that will be okay
10 on the Federal Clean Air Act side of the world.
11 But I can't look you in the eye and tell you for
12 sure that, because we don't have those final
13 numbers yet. But we're sure more than breaking a
14 sweat to change the land use pattern, which will
15 change the travel behavior, which will change the
16 emissions. And we feel like we're making good
17 progress.

18 Thank you.

19 PRESIDING MEMBER PFANNENSTIEL: Thank
20 you. Just one quick question, Mike. When you
21 showed the map of your adopted plan, and you
22 showed the core and smaller cities outside of the
23 core --

24 MR. McKEEVER: Right.

25 PRESIDING MEMBER PFANNENSTIEL: -- do

1 you have transit plans among those areas?

2 MR. McKEEVER: Well, not so much --
3 there is bus service plan to connect the smaller
4 areas around the edge to the urban core. And
5 there are some limited services to connect them to
6 each other. But there's honestly not much service
7 plan to connect the smaller areas to each other,
8 not nearly as much as connecting them into the
9 core.

10 For two reasons: That's where the jobs
11 are currently, and most of the commute patterns
12 are from those smaller areas into the core. And
13 secondly, we just have a horrible problem with a
14 limitation on transit operating funds. We just
15 don't have the money to put all the transit into
16 this plan that we need to yet.

17 PRESIDING MEMBER PFANNENSTIEL: And then
18 within the smaller areas, outside of the core, but
19 within those smaller areas, what kind of transit
20 opportunities are there within those areas?

21 MR. McKEEVER: Well, there are local bus
22 services within many, not all, but many of those
23 areas, there are local bus services.

24 And I will say that one of the most
25 challenging parts of blueprint planning on the

1 land use side is trying to figure out a way in
2 those outer areas to help them grow with a balance
3 of jobs and housing. Because you know that the
4 common pattern is bedroom community rooftops of
5 people who turn into long-distance commuters. And
6 that's the system that we can't figure out how to
7 make work, you know. We don't have enough money
8 to build enough transportation capacity to make
9 that work.

10 So, we have to find ways to get
11 employment in those areas. And then to have the
12 housing growth be to serve those workers as
13 opposed to the workers in downtown Sacramento or
14 Rancho Cordova or Roseville. And that's a
15 challenge.

16 PRESIDING MEMBER PFANNENSTIEL: So
17 ideally each of these smaller areas would be a
18 combination of housing, jobs, commercial, schools.

19 MR. McKEEVER: Right, right.

20 PRESIDING MEMBER PFANNENSTIEL: Thank
21 you.

22 MR. McKEEVER: And so we're putting
23 incentive money, out of the transportation funds,
24 into promoting housing development in the inner
25 core, in and around those job centers in those

1 transportation corridors, like the simulation I
2 showed you.

3 And in this new RTP we're going to add a
4 new program element in that community designed to
5 target promoting certain kinds of employment
6 growth in those outlying areas.

7 PRESIDING MEMBER PFANNENSTIEL: Thank
8 you very much.

9 MR. McKEEVER: Thank you.

10 MR. BARTHOLOMY: Thank you very much,
11 Mike. It's always an absolutely fascinating
12 conversation when I hear you present, and we
13 appreciate that you didn't bring the boring
14 presentation this time. So, keep that up.

15 Next we're going to be hearing from one
16 of the other real model blueprint projects across
17 the state, and that was done down at the San Diego
18 Association of Governments. And we have two folks
19 that have joined us today, Susan Freedman and Bob
20 Leiter, telling us about SANDAG blueprint project.
21 So, welcome.

22 MS. FREEDMAN: Good morning; it's a
23 pleasure to be here today. Again, my name's Susan
24 Freedman and I'm the Senior Regional Energy
25 Planner at SANDAG. And Bob Leiter is my boss and

1 the Department Director for Land Use and
2 Transportation. He'll be providing some comments
3 toward the end of this presentation.

4 These are some of the questions we were
5 asked to try and answer today throughout our
6 presentation: The challenges to smart growth
7 planning; what will it take for our development to
8 be smarter; and what the state could be doing to
9 help out on that.

10 To set the stage in the San Diego
11 region, we have a regional comprehensive plan that
12 our board of directors adopted in 2004. And with
13 that, produced a smart growth concept map as an
14 outcome of that. And we have several other
15 implementation efforts that feed into promoting
16 smart growth in the region.

17 So this RCP, this is our blueprint plan
18 for the San Diego region. And that region, it's
19 San Diego County. We have 18 cities and the
20 County of San Diego represented as members. It's
21 about 3 million people.

22 SANDAG Board, just to also make a
23 comment on that, we develop guidance, regional
24 energy plan, regional transportation plan,
25 regional comprehensive plan. What we don't do, we

1 do not have land use authority. So we do not have
2 requirements in that. But I'll show you how we
3 address that.

4 So, first when we came up with the last
5 plan we were taking a look at the future. We had
6 as a growing population, and the jobs and housing
7 growing at a little bit slower pace. And then
8 looking out to 2030, we saw that our population
9 again was moving at a much faster pace than our
10 jobs and our housing. And actually our housing
11 had about a 90,000 housing unit shortage. So we
12 need to find ways to address that.

13 So, that current path, if we just looked
14 at the 18-city general plans and the county's
15 plan, we're going to have skyrocketing housing
16 costs and housing shortages, increased traffic
17 congestion and less open space. And these were
18 some of the reasons behind the regional
19 comprehensive plan.

20 So this -- I'm not going to go through
21 the whole thing, but at the top here we have the
22 vision. And based on our growth forecast, that
23 fed in both border issues and our planning
24 concept. The big point of the regional
25 comprehensive plan was to link the transportation

1 planning at regional and local level, as well as
2 our land use housing planning at regional and
3 local level.

4 Take into consideration those sensitive
5 lands and public facilities. And then as some
6 outcomes, take a look at what could be some
7 sustainability assessments to make sure we're on
8 the right path; how are we implementing the plan;
9 and having performance monitoring. We have a
10 performance monitoring report on a variety of
11 topics that we release every year.

12 So the themes of the RCP. Again, better
13 connecting transportation and land use planning.
14 Using transportation in our land use plans to
15 guide our other plans. And making this happen
16 through incentives and collaboration.

17 So, as I mentioned, 1 here, the land use
18 and transportation plans, feeding into each other.
19 Taking a look, this is our regional transportation
20 network that we saw for 2030. And the red is
21 transit going through the region. We have managed
22 and high-occupancy vehicle lanes, general purpose
23 lanes, a lot of freeway connectors, and HOV
24 connectors on that.

25 Now, to try and put this in perspective

1 I have a brief, 30-second video here, which I hope
2 will load, showing our future for managed lanes.

3 No volume. We'll try this for once.
4 There's supposed to be a little descriptor that
5 talks with a much more pleasant and soothing voice
6 than I have.

7 (Pause.)

8 MS. FREEDMAN: Okay, let's try that one
9 more time.

10 (Video played.)

11 MS. FREEDMAN: Now, what all that means
12 is this is part of our -- this came out of our
13 regional comprehensive plan, and it's the way
14 we're trying to address that sprawl that's out in
15 north county. We have congestion on our I-15, on
16 all our freeways. When we do further freeway
17 development we never do it as freeway alone.
18 There is always a transit component to that.

19 This is under development right now, the
20 managed lanes on the I-15. The construction is
21 happening in phases. A little bit more traffic
22 right now, but we're looking toward the future
23 when we'll have the bus rapid transit in full
24 effect there.

25 Another aspect of our transportation

1 planning with that is also congestion pricing. We
2 have, as fast track, which is throughout the
3 state, but there's about eight miles on our I-15
4 corridor, northern part of the county, again,
5 north of the 163 to Ted Williams Parkway.

6 And what that does is going through this
7 it provides priority access to our buses and
8 vanpools and carpools. But if you're a single
9 occupant driver, you can also have a design for
10 service variable pricing fee that happens. It's
11 an electronic device that's in your car that you
12 sign up for.

13 And depending on the time of day you get
14 charged a different rate. For instance, in the
15 highest peak hours with the congestion at rush
16 hour that's the most expensive time for you to pay
17 to go onto the congestion pricing, the fast track
18 area of I-15.

19 We're currently developing an extension
20 to that for about another ten miles north of where
21 that ends. And we've got plans for other freeways
22 in the area. But the congestion pricing has been
23 in place and we're going to provide some
24 subsequent analytical information on that in our
25 comments.

1 As far as our regional transit
2 corridors, the San Diego region is a little
3 different than the work that SACOG's doing, in
4 that we do have a lot of transit corridors already
5 in place.

6 We have the trolley system; we have the
7 coaster; we also have some -- we have Amtrak down
8 there, and a lot of bus services.

9 All of the yellow markings that are on
10 this map, these are regional or corridor transit
11 stations, and they are all smart growth
12 opportunity areas.

13 So building from that on the transit map
14 in our transportation planning, we have the smart
15 growth concept map. And that is looking at where
16 future infrastructure investments should occur so
17 that we can answer that 90,000 housing unit gap in
18 that rising population by 2030.

19 So, what we found with developing this
20 smart growth concept map is that if we did focus
21 our development into the smart growth regions, we
22 could offset that housing shortage come 2030.

23 I think smart growth has been defined
24 enough today so far, but we have seven smart
25 growth place types ranging from the metropolitan

1 center of downtown San Diego. We have urban
2 centers and town centers, which are more in the
3 university town center area, some of our local
4 cities, Escondido, downtown.

5 We have mixed-use transit corridors,
6 which would be, if anyone's familiar with San
7 Diego, like the north park community; some of our
8 old-style neighborhoods that have a lot of mixed
9 use development there.

10 Special use centers. That would be, for
11 instance, our university system, SDSU. We have a
12 new trolley system, a trolley stop that goes over
13 there now. And a lot of mixed use that's
14 happening in that area.

15 So this is just a closer look at that
16 smart growth concept map. This was pulled
17 together in cooperation and coordination with the
18 18 cities in the region and the county. So we
19 worked with the city planners to come up with
20 where they had seen there was smart growth
21 potential, as well as what we saw on a regional
22 basis with the transit corridors, where there
23 could be smart growth potential.

24 So we saw one of these before, so I
25 think this one's a little bit different. But I'll

1 go through quickly. Difference between sprawl and
2 smart growth on this streetscape.

3 We're starting to use some visualization
4 tools which have been a big help with selling the
5 idea and making it more tangible what smart growth
6 is for both planners, as well as for public.

7 So, with this, what we found is the map
8 was great; the comprehensive plan is great; but we
9 still need to implement this plan. And what we
10 found is we need a whole showcase of
11 implementation tools.

12 The I-PLACE3S simulation model. We are
13 using that right now, and we've conducted training
14 with our local city planning offices. We have
15 pilot projects being undertaken with the City of
16 Escondido, looking at mixed-use options and
17 alternative scenarios around some transit stops
18 where we're going to have a springer line put in,
19 which is an east/west light-rail system that's
20 going into place.

21 The 3-D visualization, we find that is
22 really important right now, and I think a project-
23 by-project basis to enable smart growth to happen
24 and to give people that understanding at the
25 community level of some opportunities.

1 We're right now underway with developing
2 urban design guidelines. We have a smart growth
3 financing strategy. And we've been bringing in,
4 not for the first time, we've been bringing in and
5 making it more relevant the public health
6 discussions that we're hearing so much of, I
7 think, on a national level.

8 One more tool. This last month or so,
9 I'd say, we just put all of this online. Our
10 smart growth areas, we have 200 smart growth areas
11 outlined in the region that came from the map.

12 And what you can do now is any
13 jurisdiction or the public can go on to SANDAG's
14 website, pick out the jurisdiction they want to
15 look at. They'll get a dropdown menu of any of
16 the smart growth opportunity areas.

17 From that you can click down one more
18 into the location and get a little site summary
19 overview. You can also look at this, tied in with
20 Google maps, aerial or the regular map-type
21 viewing, or a hybrid of both.

22 There's a couple more cute little
23 pictures. So now from the blueprint plan, we
24 mentioned before the goal about it was a tie-in,
25 our land use and our transportation plans.

1 And we're beginning to see this, really
2 the heart of this in the update of our regional
3 transportation plan. The 2007 draft just went out
4 this past Friday, so right on time, at SACOG, too.
5 We expect to have the draft EIR out in another
6 month to two months.

7 Some things that are different for this
8 update. The smart growth concept map was included
9 into our regional transportation plan for the
10 first time. We've also incorporated climate
11 change and public health issues into the 2007
12 update.

13 Some other things that are happening
14 with that. We have some updated project
15 evaluation criteria for the plan. And this is
16 another thing that is new for this go-round of the
17 2007 plan. The transportation projects received a
18 higher priority for the first time if they were in
19 smart growth areas or connected to different smart
20 growth areas. So we're now building on the first
21 steps we took in the last plan.

22 So this was the second theme of our RCP.
23 Using the land use and transportation to guide our
24 other plans. This is really where energy fits in.
25 Well, it fits in a lot of spots, as an energy

1 person, but formally there are several plans and
2 different issues areas and infrastructure that we
3 look at in the region.

4 And we have a regional energy strategy.
5 The one in '94 created our San Diego Regional
6 Energy Office. The most recent one was in 2003;
7 that 2003 plan was incorporated into our regional
8 comprehensive plan the last time around.

9 And now, as we update our plan, that is
10 going to be influenced by the guiding framework of
11 our regional comprehensive plan. And back and
12 forth, vice versa, what we come up with we'll feed
13 back into this larger scale process of our
14 comprehensive plan blueprint in the RTP.

15 So how energy planning fits just in
16 general in our region, other than our long-term
17 plan, the regional energy strategy, we also have
18 an energy working group. And another facet of
19 that that existed before them, that's been around
20 for about 6 years. This is composed of a mixture
21 of elected officials in the region, as well as big
22 business, small business, environmental
23 organizations, our local universities, our local
24 utility, SDG&E, and the San Diego Regional Energy
25 Office, which is now called the California Center

1 for Sustainable Energy.

2 The RES is in our blueprint plan. The
3 energy strategy, because of its adoption into our
4 blueprint plan the last go-around, it also has
5 served a purpose now in comments in considerations
6 for the RTP, as I mentioned, but also our economic
7 prosperity report. Seeing where we're looking,
8 how we're looking for economics, job growth,
9 housing and things in the region.

10 It's also included in our performance
11 monitoring report each year. Seeing where we are
12 on the path on a sustainable energy future.

13 And how climate change fits in with all
14 this. We do see that it is a pretty natural fit
15 to have climate change impacts, or climate change
16 stabilization strategies become part of that
17 overall blueprint plan.

18 I did want to also mention the Energy
19 Commission's partnered with SANDAG on our energy
20 strategy update, as well as looking at assistance
21 for sustainable region program which is working on
22 energy management plans and implementation of the
23 loading order at the local level with our cities,
24 these feeding into each other. As well as the
25 transportation assessment.

1 This plan we originally were going to
2 have off the ground and report to you right now
3 all of our initial findings, but in the grand
4 scheme of contracting between an MPO and a state
5 agency, this officially began last week on June
6 15th. So, I can tell you this is the partnership
7 plan. And we have the state partnering with us.
8 And we also have several regional partners, some
9 of which I've mentioned.

10 But SANDAG acting alone, we would not be
11 able to find the best methods to work on energy
12 planning and climate planning and bring that into
13 our traditional areas.

14 The regional partners include our local
15 utility, and again, the California Center for
16 Sustainable Energy. They really provide some
17 great leverage and some great expertise in the
18 area that we look toward.

19 So, a third theme to what we were doing,
20 connecting the land use and transportation plans;
21 then having that guide the rest of our plans.
22 There's a third component to how we make things
23 work, and that's through incentives and
24 collaboration.

25 And what we have locally in the San

1 Diego region, a transnet, it was a sales tax
2 ballot measure that passed in 2004. It was an
3 extension of some money in sales tax to go to
4 transportation projects.

5 And for the first time again we had a
6 cutout for smart growth actually getting a \$0.28-
7 billion over the next 40 years. But, it is a lot
8 of money compared to nothing.

9 Our major highways are about a third of
10 it; and transit projects tied to that. Again,
11 transit services have separate call-outs here; bus
12 rapid transit, environmental mitigation, bike and
13 peds. A lot of these things are components of
14 smart growth. So that number alone is not all
15 that counts in the smart growth area.

16 So with the incentive program, I won't
17 run through these other than to say that it's for
18 infrastructure improvements; it's also for
19 planning, to help guide our local plans into
20 incorporating smart growth.

21 As far as the environmental mitigation
22 component, just to take a look at the
23 environmental commitment out at transnet, we have
24 a regional habitat conservation fund. The
25 transportation mitigation projects, as well as

1 mitigation from our major highways.

2 So we also have separate working groups
3 outside of our energy working group that look at
4 environmental mitigation and shoreline protection
5 and other things. And they are very interested on
6 the adaptation side of climate change, what should
7 be done. And they've worked on their conservation
8 plans.

9 So we just plan internally to be
10 coordinating with those stakeholder groups, as
11 well, as we move forward on how can we best
12 address climate change for the region.

13 And so possibly some of this funding
14 they could be looking at with their conservation
15 plans, to also be looking at climate change.

16 Oh, pretty. So, some recommendations
17 for the Energy Commission. Really, to continue
18 encouraging smart energy and land use planning
19 through guidance, education and incentives. I
20 think what we've always looked at is if you have
21 some hard targets or goals, provide us with the
22 flexibility on how to best determine to reach
23 those goals. Because every region is unique and
24 different. And we are on different paths. And
25 what might work in Sacramento might not work in

1 San Diego, and vice versa.

2 I think it's really important that we
3 utilize those existing planning venues like a
4 blueprint planning process when we want to bring
5 in how to address greenhouse gases in future and
6 land use planning.

7 Something with that in particular is we
8 were at the blueprint learning network last week.
9 The chairperson was there speaking, as well as
10 Panama and myself. And it was very interesting to
11 find there are so few energy planners in this
12 field working with the MPOs, and then taking it to
13 the next step of planning for greenhouse gases.

14 So it's really important to use those
15 established, successful frameworks like the
16 blueprint learning network, that really bring
17 together all the different MPOs and COGs in the
18 state, as maybe that first step to tackling
19 emissions and land use planning.

20 And then one more plug. The energy
21 module enhancements to the PLACE3S model, we're
22 still eagerly awaiting that, and would love to add
23 that to our Escondido smart growth pilot in the
24 pilot projects that we work on in the rest of the
25 region.

1 And with that, I want to pass this to
2 Bob Leiter, again, my boss, to make some
3 additional comments on his experience with the
4 blueprint planning.

5 MR. LEITER: Thank you. First of all I
6 want to congratulate you on holding this workshop
7 and continuing, I think, the dialogue that's been
8 occurring over the last several months at the
9 state and the MPO level about regional blueprint
10 planning and its relationship to good integrated
11 land use and transportation planning.

12 I think as Reid Ewing said, I think as
13 urban planners, a lot of us who have been in this
14 business for a long time are really excited by
15 what we see as sort of the perfect storm of issues
16 and planning ideas that seem to be leading toward,
17 I think, a really good way for our state to deal
18 with some really difficult challenges that face us
19 in the future.

20 And so this meeting and the meeting
21 we're going to be attending this Thursday at the
22 California Transportation Commission, which is
23 going to be looking at these same issues more from
24 a transportation perspective and the blueprint
25 learning network, I think, are all sort of leading

1 us toward getting a better understanding of how
2 we're all going to work together to address some
3 of these issues, including the state's goals on
4 climate change.

5 What I'd like to do is talk about the
6 report that your staff prepared, and some
7 observations that I would make in relation to the
8 regional comprehensive plan that SANDAG's
9 prepared, and sort of where we see these efforts
10 converging.

11 First of all, I wanted to compliment
12 your staff on what I think is an excellent report.
13 The role of land use in meeting California's
14 energy and climate change goals, I think, does a
15 really good job of summarizing a lot of very
16 complex issues and complex regulations and laws
17 that govern this set of issues. And I think this
18 is really going to help us all do a better job of
19 understanding how to proceed, as we update our
20 regional comprehensive plan, and as we work with
21 other state agencies.

22 A couple of comments and suggestions I
23 would make in relation to your report. First of
24 all, I think it's really important, I think you've
25 heard this today, that we focus on when we talk

1 about land use planning, that we really talk about
2 integrated transportation and land use planning.

3 I think you've heard today the
4 importance of looking at transportation and land
5 use together. And one of the things that we
6 really focused on in our regional comprehensive
7 plan was looking at what we call the land use
8 transportation connection.

9 The direct relationship between our
10 transportation planning and urban land use
11 planning, and how the two have to work together to
12 achieve good results.

13 So I really would encourage you to, as
14 you address this issue, not restrict yourself to
15 land use. I think you really need to look at land
16 use and transportation as an integrated system.
17 And in your recommendations address it that way.

18 Another thing that I think is really
19 important, and this is something that we address
20 in our RCP, and you started to talk about in this
21 report. But I think it needs more attention. And
22 that is the land use plans of state agencies whose
23 land use decisions have a huge impact on smart
24 growth within our regions.

25 And I'll give you some examples of that.

1 One example is state universities. The State of
2 California runs two excellent systems of higher
3 education. And as a graduate of UC Santa Barbara
4 I was thinking about my experience in attending
5 college there 30 or more years ago. And I went to
6 college there for five years, never owned a car.
7 I rode a bicycle, I used transit, I walked from
8 Isla Vista to school every day.

9 And, you know, that was, I think, part
10 of what made me look at land use and
11 transportation differently than folks that went to
12 commuter colleges in southern California. Some of
13 my friends that drove to Cal State Fullerton every
14 day, probably looked at the world differently than
15 I did, based on that experience.

16 And I have to say that in my experience
17 in working with public universities in the San
18 Diego region, as an urban planner, I'm not sure
19 that those universities really look at their
20 mission as partly to be leaders in the realm of
21 smart growth and integrated land use and
22 transportation planning.

23 And I think that if we're all in this
24 together, if the state agencies that are doing the
25 urban planning and the systems development, also

1 looked at state agencies like public universities
2 and really talked about how smart growth can be
3 made to work on university campuses, that would
4 probably go a long way, not only toward helping
5 the regions address their problems, but creating
6 good role models in the regions for smart land use
7 and transportation planning.

8 And I know we work with three state
9 universities in the San Diego region, and I have
10 to say I think they sort of run the gamut in terms
11 of their view of smart growth.

12 One encouraging note is that we're now
13 working in a partnership with CalState University
14 of San Marcos. We actually have a partnership
15 planning structure with the university, with the
16 City of San Marcos, with the North County Transit
17 District and SANDAG to develop a smart growth
18 transportation plan for that campus. And that
19 campus is going to be expanding significantly.

20 And we think it's a good model that we
21 would like to see other university campuses in our
22 region, and probably throughout the state, look
23 at. So, again, it starts, I think, with
24 universities.

25 But your community college system, the

1 state has a lot of influence over the community
2 college system. And, again, I've run into some
3 frustrations as an urban planning working with
4 community colleges on these kinds of issues.

5 The public school system, the K-through-
6 12 system, one of the things that we all have
7 noted recently is the dramatic decline in the
8 percentage of elementary school students who walk
9 to school versus having their parents drive them
10 to school. And that's not only a smart growth
11 issue, but it's a public health issue.

12 And so looking at your state agencies,
13 looking at hospitals, looking at airports and port
14 facilities, again, can have a big impact on the
15 way that regions run.

16 And just so you know, cities have no
17 direct land use authority over any of those
18 agencies. They have no control over the land use
19 decisions that those agencies make.

20 And SANDAG or other MPOs have very
21 limited influence over their decisions. So it
22 really calls for, I think, some careful thought
23 about how state agencies like the California
24 Energy Commission can encourage their partner
25 agencies at the state to do better land use and

1 transportation planning.

2 The other thing that I would say is that
3 the comments that were made about integrated water
4 resource management by Bob Wilkinson and the
5 energy implications of those planning decisions I
6 think are really big, really important factor.
7 And I think that ought to be given more additional
8 emphasis as you prepare your reports.

9 I know that we are challenged in our
10 region with significant water quality issues and
11 water supply issues. And I'm not sure the light
12 bulb has gone on yet about the energy implications
13 of those decisions. So I think that's another
14 area that you could really emphasize.

15 And then the last point I want to make,
16 I think Mike made a good point about sort of our
17 challenge of looking at evolving urban areas and
18 how they deal with the jobs/housing balance issue.

19 We've had some recent experience working
20 with the Western Riverside County Council of
21 Governments on what we call the I-15 inter-
22 regional partnership.

23 And what we've experienced in the San
24 Diego region is over the last 10 to 15 years a
25 huge influx of people who are living in western

1 Riverside County, the Temecula Valley, and driving
2 to San Diego for jobs. And that's created a lot
3 of congestion on I-15, but it's also created a lot
4 of other challenges to the region.

5 So we've been working together with the
6 Western Riverside COG and with the other regional
7 planning agencies in western Riverside County on
8 some planning solutions toward that. And what we
9 realized, I think, as Mike alluded to, it's partly
10 doing economic development planning; strategizing
11 for how to help evolving areas expand their
12 economic base to put jobs in Temecula Valley that
13 we believe would really help that region as it
14 grows.

15 At the same time, addressing the housing
16 needs within the San Diego region that cause some
17 of that commuting problem.

18 And then the last piece is developing
19 smart transportation solutions on these corridors.
20 And one of the things that we've been working on
21 collaboratively with western Riverside County is
22 the managed lane system that you saw illustrated
23 on I-15. Currently is planned to go as far north
24 as Escondido.

25 But we could extend that system up into

1 Temecula Valley, and we could actually run a bus
2 rapid transit system into the Temecula Valley from
3 San Diego. There's the ability to do that;
4 there's the capacity in our corridor to do that.
5 The biggest challenge there would be the financing
6 of that. And we're looking at perhaps doing that
7 as a toll facility, actually building that
8 facility as a toll facility.

9 But then the bigger challenge is getting
10 the funding for transit project development and
11 transit operations. And I think as Mike and the
12 other folks here from the MPOs would attest,
13 probably one of the biggest challenges we all face
14 is getting adequate funding for transit, for
15 transit operations, for transit facilities.

16 And so if we really want to do smart
17 growth planning we really need to address the
18 challenge of providing adequate funding for a good
19 regional transit system. Because that's really
20 the way smart growth is going to work.

21 And right now I think we have some great
22 plans that probably won't get implemented as
23 quickly as they should because of lack of funding
24 for transit facilities.

25 So, those would be my comments. Again,

1 I want to commend you and your staff on an
2 excellent report. And I think this meeting's
3 going to help us all move forward. Thank you.

4 PRESIDING MEMBER PFANNENSTIEL: Thank
5 you. Thank you for your participation. It's
6 really good to have SANDAG here as a partner with
7 us in this endeavor.

8 Question for Susan, or though Mike want
9 to chime in, also. That great little streetscape
10 visual that you show, and it gets better and
11 better and better, but it does seem to me that
12 that's largely dependent on private capital coming
13 in.

14 The public capital can only go so far,
15 and then you need to encourage investments in the
16 local businesses, in the housing nearby. How do
17 you do that? Have you been successful in bringing
18 that in?

19 I know I've talked to some people in
20 Oakland, for example, and it's a hard thing to do
21 for them.

22 MR. McKEEVER: It usually does start
23 with the public capital. The ratios are at least
24 usually four- or five-to-one, though at the end of
25 the day on the private side to the public side;

1 and sometimes greater.

2 But the public typically has to make the
3 first gesture and show the investment community
4 that they're serious about making a long-term
5 commitment to a corridor like that.

6 Some of the challenges don't have to do
7 with money directly, but have to do with
8 regulatory systems. We find in our region, and
9 I'd be surprised if this is not true in most of
10 the rest of the state, that the way CEQA works
11 often makes it difficult to intensify uses in
12 those areas, because it miss -- typically CEQA
13 analyses miscount traffic and air quality impacts.
14 And make it look like, by intensifying in there,
15 that you're actually making traffic worse and air
16 quality worse instead of better.

17 And one of the things you learn when you
18 look at the kind of regional scale that we do is
19 that exactly the reverse is true. That you must
20 put that kind of development in there.

21 And, yes, there are examples of
22 revitalization projects that are working. I, back
23 in my dark days of being a consultant, I worked on
24 a few in SANDAG's service territory, actually.

25 MR. LEITER: I would just add that I

1 think programs like the smart growth incentive
2 program that Susan mentioned, are a way to sort of
3 get the ball rolling. I think making public
4 investments in infrastructure that supports smart
5 growth is really important.

6 Because one of the problems we all run
7 into, as urban planners, is community opposition
8 to any development. And if you can say that we
9 have a program that's going to provide the needed
10 infrastructure to support additional growth within
11 an area, that goes a long way toward getting
12 community buy-in for -- smart growth development.

13 But there's a lot of other things, as
14 Mike mentioned. We talk about our smart growth
15 tool kit, and it runs from CEQA relief, which I
16 think is a really important potential, but also to
17 really understanding the parking requirements for
18 smart growth development. And that they can be
19 different than they are for a traditional suburban
20 development.

21 Looking at the trip generation rates,
22 we're doing work in both of those areas. And we
23 know SACOG and MTC are doing similar work. So
24 really giving local governments the tools to be
25 able to make smart growth work in their

1 communities.

2 And then working with the private sector
3 closely. And we've developed, recently, I think,
4 a really good partnership with the Urban Land
5 Institute in the San Diego region, to share best
6 practices, participate in an awards program for
7 smart growth development and projects.

8 And to really promote, in the private
9 sector, the value of approaching some of these in-
10 fill projects with an open mind. And I think
11 we're starting to see the results of that. I
12 think it's starting to pay off.

13 PRESIDING MEMBER PFANNENSTIEL: Are you
14 able to get commercial enterprises, and I'm
15 thinking specifically of relatively small retail,
16 out of the shopping malls, onto the streets? Is
17 this necessary? Or is this happening, this part
18 of it?

19 MR. McKEEVER: Well, it's absolutely
20 necessary. And the retail side of this is one of
21 the most challenging aspects of this business.
22 Because it, for the last two or three decades, has
23 been dominated so much by the national retailers
24 who have their particular style of doing things.
25 And for efficiency and profitability reasons, like

1 to do the same thing everywhere so they don't have
2 to, you know, do new designs and what-not.

3 But even some of those major retailers
4 are inventing new, more urban products. Even some
5 of the biggest boxes in the country and in the
6 world are coming forward with more urban products.

7 The way you make the small scale retail
8 work, which is much more independent and locally
9 owned shops, is to get enough purchasing power
10 into those transit stops in those corridors that
11 you have enough local purchasing power to pay for
12 the coffee shops and the bookstores and the
13 cleaners, and all of that.

14 And so, that does work. And there are
15 many many examples clear across the country of
16 where that kind of fine-grained retail is coming
17 in. But it is a challenge.

18 MR. LEITER: And I would say I agree
19 with Mike, I think it happens at a couple
20 different scales. As far as the larger scale
21 retailers I think they're also starting to look
22 outside of the box, the big box. And looking at
23 different ways of siting major users.

24 And I think a good success story in a
25 number of them. But in south San Diego County, in

1 Chula Vista, in the Otay Ranch project is a trans-
2 oriented development project. It has a regional
3 transit system in it. And it has a town center.
4 It's a big box retail center. But that big box
5 retail center was designed and oriented toward the
6 regional transit system. And it was designed in a
7 way that recognizing that, you know, there are big
8 box users that that city wanted to attract, but
9 they wanted to retain the character of the Otay
10 Ranch community.

11 The site planning, the building design
12 and the orientation of these uses toward the
13 regional transit system was done in a way that I
14 think was very successful. And I think that
15 shopping center is functioning very well from a
16 sort of economic development standpoint.

17 So I think you're starting to see
18 examples both at kind of the large-scale shopping
19 center level and at the in-fill retail levels that
20 are going to, you know, be good examples of how
21 this can be done in the future.

22 PRESIDING MEMBER PFANNENSTIEL:

23 Excellent. Thank you, all.

24 MR. BARTHOLOMY: Chairman, we do have
25 someone on the phone that would like to make a

1 comment. Would you like to take that now or
2 during public comment period?

3 PRESIDING MEMBER PFANNENSTIEL: I think
4 generally we're going to try to hold off for
5 public comment period. But if there's somebody on
6 the phone who isn't going to be around at that
7 time that needs to be accommodated now, we'll see.

8 All right, fine, thank you.

9 MR. BARTHOLOMY: Great, thank you very
10 much, Susan and Bob. And, Susan, particularly
11 thank you for your patience with the state
12 contracting process. And, Bob, your comments on
13 the increasing amount of elementary schools
14 students driving to school, I'm glad you corrected
15 yourself and said well, their parents driving them
16 to school. I could imagine your congestion
17 problems would be a lot worse down in your area if
18 it was that.

19 So we're going from the regional level
20 to the local level with our next speaker. And I'm
21 going to ask Steve Sanders from the Institute for
22 Local Government to come up. This is a relatively
23 new Institute, and we've asked them to come and
24 talk to us about leadership on the local level;
25 and particularly about their new climate change

1 program.

2 Local governments in California, there's
3 a number of leaders for decades on these issues;
4 many have taken part in different initiatives such
5 as local government commissions, leadership role.
6 And we asked Steve to come up and talk about their
7 new program, since it is so focused on climate
8 change. So please help me welcome Steve Sanders
9 from Institute for Local Government.

10 MR. SANDERS: Thank you, Panama, and
11 Commissioners. I want to apologize because I'm
12 the last speaker, but one between you and lunch.
13 And I also do not have a PowerPoint. So,
14 hopefully you'll still take my presentation
15 seriously just by the fact that I don't have fancy
16 moving computer graphics. And that's an
17 indication of how new our program actually is.

18 So the topic that's on the agenda is
19 local government leadership. And I think that's
20 exactly the right way to frame it. And I think
21 the way to think of that is that local government
22 leadership is what we're hoping will complement
23 the state leadership that we're seeing on climate
24 change and the regional leadership that you just
25 heard about through the blueprint processes, as

1 well as the supporting work that's being done with
2 transportation expenditures, smart growth funding
3 and things of that sort at the regional level.

4 So, we think that this partnership
5 between state, regional and local is really
6 important. It's fundamental; it's going to be
7 what's going to make the process of addressing
8 climate change effective.

9 When it comes to land use we think 90
10 percent of the heavy lifting is still done at the
11 local level. So these efforts that are in place,
12 either at the state level to reinforce and
13 support, provide funding for better land use
14 patterns, or at the regional level, to provide a
15 framework for growth are absolutely essential.

16 But the project-by-project, plan-by-
17 plan, capital improvement-by-capital improvement
18 decisions that get made by local agencies are
19 where it's really going to fill out that whole
20 landscape, if you will, of what the land use
21 system is going to look like.

22 So, let me talk just a bit about the
23 Institute for Local Government. We are a
24 501(c)(3) organization. We're essentially the
25 research and education arm of the League of

1 California Cities and the California State
2 Association of Counties. And so we are their, if
3 you will, internal think tank to help local
4 elected officials deal with a range of issues;
5 provide research, provide education and provide
6 training and resources that will help them in
7 their pursuit of all the things that they need to
8 do as local officials. And this includes both
9 elected and staff level.

10 So we work very closely with both the
11 League and CSAC. We just celebrated two years ago
12 our 50th anniversary. But we are very much in a
13 sort of expansion mode because there's recognition
14 by both the League and CSAC of the importance of
15 having good resources, research, education
16 available for local officials to tackle a range of
17 really challenging situations that they face.

18 The climate change program really is a
19 response by the Institute, rather than an
20 initiative, if you will. It's responding to a
21 tremendous groundswell of interest at the local
22 level.

23 For the last year and a half League and
24 CSAC officials have been hearing from other local
25 officials that they really want to do something

1 about climate change. And usually the
2 conversation starts that way. We want to do
3 something about climate change. And then they are
4 saying, what can you do to help us figure out what
5 that is.

6 And so the Institute is there to help as
7 part of the overall effort to provide some
8 guidance and help to local officials as they deal
9 with that.

10 In terms of the range of approaches,
11 we're talking a bit about -- we're talking about
12 land use and focusing on that today. But when we
13 look at climate change we really see eight basic
14 approaches that we think local officials are going
15 to be absolutely critical in terms of reaching
16 success.

17 One, green buildings. That's an
18 important aspect. Very much something that's
19 within the purview of local government.

20 Waste reduction and recycling. Energy
21 conservation and efficiency. Alternative and low
22 carbon fuels with public fleets, with distribution
23 systems. Climate-friendly procurement; public
24 agencies are major buyers of goods and services.

25 Carbon sequestration. And encouraging in

1 leading individual actions.

2 These are all really important roles
3 that local officials will play in climate change,
4 in addition to the land use and smart growth
5 piece.

6 So while we think it's really important
7 that the state is focusing on the role of local
8 government in land use and smart growth, we don't
9 want to lose sight of the fact that we also
10 believe we can be strong partners in these other
11 approaches, as well. And our program will be
12 actually trying to provide resources in all eight
13 of those strategies, as well as in the adaptation
14 question.

15 So, in terms of our program, we are
16 essentially designing it to answer three questions
17 that are constantly being asked of us and others
18 by local officials.

19 One is what are the best practices that
20 we should be looking at. The second is, well,
21 what does it actually take to implement the best
22 practice. What can I expect in terms of staffing,
23 funding, timeframe, other issues in terms of
24 implementing that best practice. And then what
25 results can we expect if we actually implement

1 them.

2 So those are sort of the three questions
3 that we think are fundamental to helping local
4 officials figure out how they can become part of
5 the solution.

6 To answer those questions we've designed
7 three elements of our program. One is resources
8 and information, which includes case studies, best
9 practices. And when we started looking at this
10 last summer, saying we thought, well, gee, we're
11 going to have to develop a lot of resources for
12 local officials to help explain what it is that
13 they can do. And the fact of the matter is is
14 that there's a huge amount of information
15 available on what local agencies can do.

16 But what there is not right now is a
17 good sort of filter and access point that's really
18 specific to what California local officials might
19 need and want in terms of where they are today.

20 So, acting as sort of a compiler,
21 filter, adapter of information and resources is
22 one thing we think the program will be important
23 for. A lot of that's going to be through the web;
24 some of that's going to be through training and
25 education.

1 And in that regard we have the ability
2 to essentially piggyback on all the activities of
3 the League and CSAC and provide workshops,
4 trainings, programs at League and CSAC events.
5 Which can be formal ones, such as the League's
6 annual conference, which this year actually will
7 have the theme of climate change and a keynote
8 speaker who will be addressing that.

9 Or at the Planning Commissioners
10 Institute, the Executive Forum of Councilmembers,
11 city managers, things of that sort. We also meet
12 more informally on a regional basis, and city
13 managers may get together. So there's essentially
14 a huge infrastructure of League and CSAC
15 opportunities to directly reach local officials.

16 So, we want to use those pathways for our
17 resources and information.

18 The second observation we made as we
19 were thinking about this, is that most of the
20 actual innovation that happens at the local level
21 is done through peer-to-peer learning. And so
22 there will be somebody who tried something in one
23 city or a county, and it gets known, gets heard
24 about. There are opportunities for people to
25 learn about it. And then it starts getting

1 applied in other places. It gets modified; it
2 gets improved; and that's kind of how the
3 innovation happens. And there are networks that
4 are in place to make some of that peer learning
5 happen.

6 Our concern is that this is a natural
7 process. We expect that will happen with climate
8 change strategies. We think it's going to be too
9 slow. We think if we just let the natural course
10 of that evolve, we are not going to be at the pace
11 that we need to be in terms of reaching our
12 objectives, whether they're state objectives or
13 local objectives, on climate change.

14 So, our program will be looking at how
15 we can essentially speed up that whole process.
16 Facilitate the creation of those networks. Set up
17 opportunities for networking to occur, for the
18 diffusion of this information. Find those gurus;
19 get them in touch with the folks that can learn
20 from them.

21 And the third piece, which I think is
22 kind of unique to what we are trying to do, from
23 other programs that we've heard about, is we would
24 like essentially to have a local certification
25 program for best practices.

1 And the reason for that, there's a
2 number of reasons for that. One, there's a
3 healthy competition amongst, or rivalry, if you
4 will, amongst local officials that we would like
5 to tap into.

6 We think that a certification program
7 that would recognize local officials for taking
8 action on best practices is a way of them being
9 able to demonstrate their commitment. And also, I
10 think, provides information to their citizens,
11 which is where a lot of the pressure is coming,
12 that they're actually moving ahead.

13 So, one of the things we want to do is
14 essentially have those best practices in a format
15 where a city can be starting from scratch, or can
16 be very well developed, and still find things that
17 they can do, that are within their power or within
18 their resources, and that can be done in a
19 relatively short timeframe.

20 So if you're starting from scratch
21 working on what we would call -- the bronze,
22 silver or gold level -- at a bronze level, with
23 some basic things that you can do, would get that
24 city or that county moving forward and
25 demonstrating progress.

1 Another city or county maybe have done
2 all of those things. And that doesn't mean that
3 they should then give up. We want to be able to
4 reward them and recognize them for going the extra
5 mile.

6 But in order to do that we're going to
7 actually need to know what those best practices
8 are, as I said before.

9 So, in terms of doing that, in terms of
10 coming up with those best practices and developing
11 them, our sense is that it's certainly not
12 something we can do our own. That we need to do
13 it through partnerships, and that we're going to
14 be leveraging those partnerships to make that
15 happen.

16 Which gets to how the Commission and the
17 state might be able to help local officials in,
18 more quickly than they otherwise would, adopting
19 climate change strategies at the local level.

20 One thing is to recognize that
21 development won't pause while we study and plan.
22 And that we need to implement good strategies now,
23 even if they're not perfect. We shouldn't be
24 waiting for definitive studies that can take five
25 or ten years before deciding to move ahead.

1 And that's really the biggest danger
2 here, is that taking the first step is the hardest
3 one, in many cases, for a local government. And
4 so we want to help them get to that point.

5 And the purpose of the certification
6 program is to give them a vetted set of best
7 practices that others have done, that they can
8 have some certainty will produce certain results
9 that they'll have some confidence of what it will
10 take in terms of resources and time to put into
11 place. And then get them moving in that
12 direction.

13 So, in terms of what we hope over the
14 next year, or even less, we're planning to partner
15 with the local government commission and with
16 ICLEI in essentially developing this best
17 practices guide and this education certification
18 program.

19 And, again, it's designed to answer the
20 three questions that we are constantly asked:
21 What are those best practices. What does it take
22 to implement them. What results can we expect.

23 So we're hoping that, in partnership
24 with others who are working with local government,
25 we can work with the Energy Commission and the

1 state to provide those answers as quickly as we
2 can. And take advantage of the infrastructure
3 that we're building with others that will reach
4 local governments quickly, with good quality
5 information that they can take advantage of.

6 So, I'd be happy to answer any questions
7 you might have.

8 PRESIDING MEMBER PFANNENSTIEL: Thank
9 you, Steve, for being here. I don't have any
10 questions. Thanks very much.

11 MR. SANDERS: Thanks.

12 MR. BARTHOLOMY: Thank you very much,
13 Steve. I appreciate you coming in and talking to
14 us about leadership on the local level.

15 Our next speaker is going to take us
16 from the very local level to the absolutely
17 national level. And we're very excited to welcome
18 back to the Commission Suzanne Reed, one of our
19 first Commissioners, a group of our first
20 Commissioners here at the California Energy
21 Commission.

22 She now works for the Center for Clean
23 Air Policy. And she is going to be talking with
24 us about the national perspective, and also what
25 some of the other states are doing around these

1 issues that we may be able to look to as models as
2 we're developing our own plans and policies.

3 So, thank you very much, Suzanne Reed,
4 for coming in.

5 MS. REED: I hate to date myself, but
6 when I first came to the Energy Commission we
7 didn't have computers; we had word -- we had some
8 magical place called word processing where we sent
9 all our documents, and then they came back looking
10 beautiful. So, every once in awhile --

11 PRESIDING MEMBER PFANNENSTIEL: We've
12 made progress, Suzanne. Now we have to do it,
13 ourselves.

14 (Laughter.)

15 MS. REED: I'm excited to be here and to
16 be working with the Energy Commission again, and
17 my good friends on the Energy Commission. All of
18 us being here in one form or another has proved
19 that old energy policymakers never die, they just
20 reincarnate themselves --

21 PRESIDING MEMBER PFANNENSTIEL: Recycle.

22 MS. REED: -- yes, recyclers, also.
23 Here we are.

24 I'm going to run through a lot of stuff
25 relatively quickly today. My friend, Reid Ewing,

1 and I seem to be doing a tag-team here, and so
2 he's actually shortened my presentation a little
3 bit by sharing with you the Winkelman chart and
4 explaining it in detail, so I won't have to do
5 that.

6 But I'm going to cover what's happening
7 in the federal government where there is some
8 activity. I'm going to highlight some of the
9 states that I believe are leading the way, and
10 some of the organizations that are trying to pull
11 a lot of activities nationwide together.

12 And answer the Chair's question about
13 can we get where we want to be. And with some
14 recommendations and observations that I've pulled
15 out of my examination of the state programs about
16 how do we get there.

17 This is the now infamous Winkelman chart
18 which answers the question why do we care. This
19 chart, unlike the one that Reid showed you, is
20 geared to the California data. And it tells the
21 same story, which is our VMT is growing at a rate
22 that out-paces our population growth. And in so
23 doing, left unchecked, will overwhelm any gains
24 that we make through the Pavley standards or fuel
25 efficiency or low-carbon fuels.

1 At the federal level many of you are
2 familiar with some of the programs that have been
3 stimulating or supporting smart growth activities.
4 The Centers for Disease -- these are in
5 alphabetical order, not necessarily in order of
6 importance -- but interesting from the perspective
7 of the Centers for Disease Control and Prevention
8 are very engaged in smart growth from obviously
9 the health and obesity perspective, which we think
10 is an important effect that the public needs to
11 understand in terms of benefits of smart growth.

12 The Department of Agriculture, through
13 its economic research service, looking at the
14 preservation of agricultural lands; the Department
15 of Energy has a program called smart communities.
16 Actually they have a program called smart
17 communities network. And I hit the return button
18 too late, or too early.

19 So the Environmental Protection Agency
20 smart growth office, and I'm sure that many of you
21 have worked with, and I know Reid has produced a
22 number of monographs for the agency. Alarming,ly,
23 the proposed fiscal year '08 budget cuts, as it
24 stands now, cuts its program by one-third. So
25 anyone that wants to go out and advocate for that

1 budget to be restored to its regular staffing and
2 funding levels should let their elected
3 representatives know that.

4 The Federal Highway Administration has a
5 smart growth office. And the National Oceanic and
6 Atmospheric Administration is working in coastal
7 community development; and in so doing it is also
8 very engaged in the issue of adaptation, which I
9 would also include in my definition of smart
10 growth, as well as the other recommendations that
11 have preceded me.

12 At the congressional level I think those
13 of you who are following understand that a lot of
14 the activity right now is on climate change
15 legislation. Will there be a national greenhouse
16 gas reductions bill? If so, what will it be. If
17 there is one, will the President sign it. Will it
18 come up this session. Will we wait for a new
19 Administration.

20 Less activity in the area of smart
21 growth. However, in doing some research I was
22 pleased to find that there is a Senate smart
23 growth task force that has been in existence since
24 1999; chaired by the Minnesota Senator Carl Levin,
25 who has sponsored or authored some open-space

1 preservation and smart growth legislation in the
2 past.

3 This bipartisan task force now includes
4 over 20 United States Senators. And the members,
5 their mission is to introduce bills to promote
6 locally driven, federally supported smart growth
7 practices, sponsor studies and host educational
8 forums. So, it would definitely be an appropriate
9 place to take our request and advocacy for smart
10 growth policy.

11 One piece of legislation that does seem
12 to be moving, that has a relationship to smart
13 growth, is the Oberstar -- Representative
14 Oberstar's HR-2701, the transportation energy
15 security and climate change mitigation act of
16 2007, which promotes new, fuel-efficient shipping
17 for goods and freight. Increased -- greening of
18 the U.S. Government. And this bill was reported
19 out by the House Transportation Infrastructure
20 Committee this month.

21 Looking potentially to our futures,
22 Senator Obama has a smart growth bill. Senate
23 Bill 1067, the healthy places act of 2007. This
24 bill is directed largely to reducing the impacts
25 of growth on disadvantaged populations.

1 And California Congresswoman Hilda Solis
2 has a companion bill in the House. Neither bill
3 is moving. And Senator Collins of Maine has
4 Senate Bill-1131, regarding the preservation of
5 forests and open space.

6 So, one of the activities that CCAP,
7 which is what we call the Center for Clean Air
8 Policy, those of us who work for it, has initiated
9 a dialogue among stakeholders. And some of you
10 here may actually be participating in this
11 dialogue. It's conducted on the phone and through
12 a series of web-- gotomeetings by my colleague,
13 Steve Winkelman.

14 And the purpose of that dialogue is to
15 develop policy options for addressing some of the
16 disadvantages we have heard about today and the
17 federal transportation funding process.

18 We're currently operating - safety --
19 which sends the wrong signal on climate. It has a
20 user fee-based formula for funding that is based
21 on vehicle miles traveled, fuel use and lane
22 miles. And therefore, rewards increases in these
23 activities and increases in GHG emissions.

24 Federal discretionary funding is capped
25 at 50 percent for transit and is highly, highly

1 competitive. But it's earmarked 80 percent for
2 highway funding. And the alternative analyses
3 required for large projects and state
4 implementation plan conformity take a narrow view
5 of the benefits and ignore potential savings from
6 integrated transportation and land use and higher
7 density, as we just discussed.

8 So how do you make green TEA. You
9 include greenhouse gas performance criteria,
10 rewarding VMT and GHG reductions. Either by
11 planning support, you increase the tools that are
12 available, the data and the models. You promote
13 regulatory approaches that will enable SIP
14 conformity and the co-benefits of smart growth to
15 be realized in impact analysis.

16 You leverage infrastructure funding and
17 target it to areas that are going to prosper from
18 smart growth and transportation choices. And you
19 provide incentives for transit, transit-oriented
20 development, pedestrian ways and bicycle ways and
21 demand management.

22 Moving to the state activity. This is a
23 list of about 14 states that have some kind of
24 smart growth program or policy in place. And I
25 wanted to highlight a few of these in my

1 presentation.

2 Each of them has a variety of policies.
3 Some of them are common, some of them are distinct
4 or unique to that state.

5 In New Jersey when the attractions of
6 the New Jersey development and redevelopment plan
7 was the cross-acceptance process that involved New
8 Jersey residents. It was a very extensive public
9 outreach program.

10 Their statewide planning objectives
11 include land use, housing, you can read the rest.
12 It's basically as we've been describing and
13 defining smart growth.

14 There's a state policy map that depicts
15 areas that are targeted for growth, limited
16 growth, and conservation. And there is a state
17 planning commission office of smart growth that
18 coordinates state agency policy.

19 In Pennsylvania the governor's economic
20 development cabinet adopted principles in 2005 to
21 guide state agency investment in local growth and
22 economic development support. These are
23 principles that you'll probably see actually in
24 Massachusetts and some other places, that again
25 are consistent with how we've been defining smart

1 growth.

2 Reid went over some of the Maryland
3 programs in much greater detail. It was
4 interesting that as early as 1997 they had the
5 priority funding areas act that targeted
6 investment to support smart growth. They amended
7 the planning act last year to promote healthy
8 growth and prevent sprawl. This act requires
9 municipalities to include a municipal growth
10 element and a water resources plan element in
11 their general plans. And the act also promotes
12 regional and local coordination.

13 This effort was the outcome of the state
14 government, stakeholder and public collaboration.
15 And in addition, Maryland has quite a good website
16 that includes, is a portal for smart growth
17 information, research, activities, links, tools.
18 There's a continued program of outreach to the
19 public and to the planners in terms of training
20 them how to comply with the new planning act
21 requirements. And also to the private sector.

22 And the amendments last year also
23 established a task force on future growth -- on
24 future for growth and development, which will
25 recommend laws and regulations to further best

1 management practices at the end of this year.

2 Massachusetts has just recently
3 announced that it's going to require private
4 developers to estimate greenhouse gas emissions
5 for large-scale projects, and mitigate any impacts
6 with energy efficiency, alternative fuels,
7 transportation options, among others. And they
8 expect to have lower guidelines available in July
9 of this year, which will include scoring for CO2
10 emissions from projects which is, I think, a
11 growing area of need for local governments to
12 begin to implement these plans.

13 In addition, Massachusetts has a
14 scorecard that's screened for who gets \$500
15 million in grants and loans each year for
16 infrastructure, parks and other local
17 improvements. Cities and towns check 27 items on
18 a scorecard that include initiatives to change
19 zoning, produce less sprawl, housing, protective
20 of space and farms. And the higher the score, the
21 higher the rank for funds.

22 There are many organizational, or
23 several key organizational efforts to bring
24 together activities throughout the country, most
25 notably with the U.S. Conference of Mayors, the

1 Clinton Foundation and ICLEI.

2 In the U.S. Conference of Mayors, there
3 was an initiative launched by Seattle, Washington
4 Mayor Greg Nickels in 2005 to advance Kyoto
5 Protocol goals through leadership by American
6 cities.

7 And the cities commit to meet or beat
8 Kyoto Protocol targets, promote state and federal
9 government, greenhouse gas reduction programs; and
10 urge Congress to pass bipartisan greenhouse gas
11 reduction legislation establishing a national
12 emission trading system.

13 As of last week, I guess, 540 mayors
14 have signed on, although I have to say I recently
15 saw an article that suggested that not everybody
16 knew what they were getting themselves into, or
17 what they were signing. So, making it all the
18 more important that we provide the tools that they
19 need to make it happen.

20 The Clinton Foundation activity is a
21 relatively new one. And it's intended to apply
22 business-oriented approach to help cities fight
23 climate change through collaboration, sharing best
24 practices.

25 Interestingly, participating in an

1 energy efficiency technologies purchasing
2 consortium, and measuring and inventorying energy
3 use. There's an energy efficiency building
4 retrofit program that was recently kicked off, and
5 the intent is to reduce energy consumption in
6 existing buildings. And cities to develop and
7 initiate these programs. And also to procure
8 financing for them.

9 ICLEI has the cities climate protection
10 campaign. And it's providing, again, tools,
11 benchmarks and guidelines to help cities implement
12 climate plans.

13 So the question that the Chair asked us,
14 can we get there. And I've just offered some
15 quotations that I think indicate the trend in
16 public attitudes, markets and demographics I think
17 will get us there. Nearly half of what will be
18 the built environment in 2030 doesn't even exist.

19 And given the current generation of
20 vital opportunity to reshape the future
21 development exists. Then in April, in response to
22 Massachusetts' announcement that it would be
23 requiring project GHG emissions to be evaluated,
24 David Begelfer, the Chief Executive Officer of the
25 National Association of Industrial and Office

1 Properties, said high energy costs are driving
2 developers toward more energy efficient
3 construction. Green building has been happening
4 around the country, and it's becoming, in some
5 ways, best in the industry practices.

6 And if we build it, will they come. And
7 this is a quote from Gloria Ohland at the
8 Reconnecting America, who has conducted public
9 opinion research in this area, as well as
10 demographic research. And the trends indicate
11 that the people that are most likely to want and
12 need a higher density housing and smart growth are
13 the growing segment of our population.

14 So, how do we get there from here?
15 Based on my observations of the state programs and
16 other programs that I've reviewed, I'm
17 recommending that we adopt both a work from the
18 top down and a bottom-up approach. And that is
19 that we have to provide the leadership and
20 direction and the policies at the top down. But
21 as the prior speakers have said, much of the
22 activity is going to occur at the local level.
23 And that level has to be not only prepared, but
24 primed to act. And that includes both government
25 and nongovernment, at the grassroots.

1 We need to provide state leadership and
2 direction. And in all the cases that I've covered
3 in my presentation, the governors' support of
4 those programs was essential. And, in fact, where
5 some of these programs existed in the past, they
6 kind of receded with the change of Administration.
7 And only when that Administration was replaced by
8 a more enthusiastic governor were those programs
9 restored to their operating level, at a functional
10 level.

11 Also in some of the programs that seemed
12 to have the greatest -- that are the most robust,
13 there seems to be some kind of an established and
14 continuing state coordinating entity that
15 coordinates state activities and state policies
16 among agencies. And that there are a set of
17 agency guidelines within which all the agencies
18 function in order to implement their authorities.
19 No matter whether they are theoretically smart
20 growth related or not.

21 And finally, the successful programs
22 are -- the most robust-appearing programs, have
23 this concept of directing infrastructure and other
24 investment toward promoting and supporting smart
25 growth. And an actual filter guidelines or

1 scorecard that ranks applications for funds.

2 We're going to hear later this afternoon
3 from someone talking about greening the bonds in
4 the state. which is obviously an attractive source
5 of opportunity for us to provide this kind of a
6 filter and a guide for state funding.

7 But I would actually apply a wider net,
8 and say that all state funds and all the federal
9 pass-throughs to and through the state should be
10 guided in the same manner.

11 It is very important, as we've heard, to
12 engage the support of -- engage and support local
13 and regional governments. They need the
14 guidelines, both CEQA guidelines -- we now have
15 the attorney general telling local governments
16 that they have to assess and the projects have to
17 assess GHG reductions in their impact analyses.
18 But, again, we don't necessarily have the tools or
19 a consistent set of tools to apply.

20 Nor do we have a good set, although
21 there are some generally available nationally
22 regarding general plan amendments and guidelines.
23 And we've also heard the modeling needs some bells
24 and whistles attached to it. And more tools.

25 We need to enlist the private sector and

1 the investment community. And public/private
2 partnership is also an option. We need to
3 increase public awareness, foster consumer demand.
4 We need to educate future planners, architects and
5 builders.

6 And I think you can see the importance
7 that our academic institutions and the impacts
8 that our academic institutions are having in this
9 field. And the resource that they provide. And
10 let us not forget that they are also the ones that
11 are educating the folks that will be implementing
12 climate change policy for years to come. And so
13 we will have a new generation of future planners
14 for whom planning for smart growth and climate
15 change and adaptation are second nature.

16 And finally, we need to continue to
17 advocate for federal smart growth policy and
18 funding, for instance, as in GREEN-TEA.

19 And that concludes my remarks.

20 PRESIDING MEMBER PFANNENSTIEL: Thanks,
21 Suzanne. I know you went through a great deal of
22 information quickly, trying to give us an entire
23 federal landscape in about 15 minutes.

24 Let me ask you about something I'd asked
25 before, and I'm starting to get really intrigued

1 by how do we get there.

2 The question of private capital. And
3 you saying enlist private sector and investment
4 community. You mentioned public/private
5 partnerships. But you also described the
6 Massachusetts' plan, where they're requiring
7 private developers to meet GHG goals when doing
8 certain strategies.

9 How else do we think about getting the
10 private dollars into this? As I've been thinking
11 about the need to direct the state dollars, or the
12 public dollars. I think there have been some very
13 good recommendations today, and elsewhere, about
14 how to use some kind of climate screen or other
15 kind of smart growth screen to direct the state
16 dollars.

17 But the private dollars need to be
18 attracted. They can't, especially, be directed.
19 Although I guess that there are some legal
20 recourse that we're seeing to insist that they do
21 certain things.

22 What are you finding that works in
23 getting the private dollars where you want them to
24 be going?

25 MS. REED: Well, I can't say that I'm

1 personally executing or have examined the
2 literature in attracting private sector dollars.

3 I can make some comments based on the
4 experience that I had working with the metro
5 system and metrolink commuter rail in southern
6 California. And also some concepts from just
7 talking with other folks about these kinds of
8 challenges.

9 With respect to the metro system and the
10 metrolink commuter rail system, that was actually
11 joint funding. There was the concept of joint
12 funding at stations and having the private sector
13 participate as investors in transportation-
14 oriented development.

15 And, you know, there were things
16 offered, like density bonuses and various
17 regulatory streamlining types of benefits that the
18 private sector could realize by participating.

19 So, I think streamlining. Private
20 investment really depends a lot on risk
21 minimization, certainty, ability -- consistency,
22 ability to anticipate. And to the extent that we
23 can provide that as -- or that government can
24 provide that, I think it will invite and entice
25 more private investment.

1 In some legislation that's currently
2 pending in California the concept of streamlining
3 the CEQA process in a way that would appropriately
4 evaluate the environmental impacts, but also
5 provide a wider scope of what a regional plan
6 looks like. And then allow major projects that
7 conform to fit in, also provides some of that
8 streamlining opportunity and predictability.

9 The other place, I think, is to
10 stimulate the market. And, as I was trying to
11 point out by the quotes that I offered, some of
12 that market is occurring naturally. And the
13 National Association of Realtors, I know, is
14 conducting an annual survey on market and consumer
15 demand, and also providing funding for its state
16 realty associations to provide similar types of
17 studies that will help them anticipate the market,
18 and anticipate the demand for this kind of
19 product.

20 And then there are opportunities for
21 market leaders to demonstrate and provide models.
22 And I think what was suggested earlier about
23 certification -- or not so much certification, but
24 recognition and awards for that kind of activity.
25 I really do think that they help bring visibility

1 to those kinds of activities and market leaders
2 and reward them for doing good work in leading the
3 way.

4 So, those are some of the
5 recommendations that I would make.

6 PRESIDING MEMBER PFANNENSTIEL:
7 Excellent; thank you very much.

8 MS. REED: And I think I was the person
9 standing between everybody and lunch, so --

10 (Laughter.)

11 PRESIDING MEMBER PFANNENSTIEL: Well,
12 I'm really impressed that it is going on towards
13 noon and we seem to be right on our morning
14 schedule. Good job, Panama.

15 MR. BARTHOLOMY: You get lucky
16 sometimes.

17 Let me just mention before we go to
18 lunch there is a map, for those of you from out of
19 town, out in the front, of restaurants nearby.

20 And as Mike McKeever brought up, it's
21 very important that we be looking at our
22 agricultural lands around our communities so that
23 we can be reducing the need to be importing food
24 and be encouraging more things like low-carbon
25 options, such as farmers markets, such as was

1 right across the street today. There's a
2 wonderful farmers market, and please avail
3 yourself of some of our local fruits and
4 vegetables and food over there.

5 PRESIDING MEMBER PFANNENSTIEL: And
6 we'll reconvene at 1:00. Thank you.

7 (Whereupon, at 11:53 a.m., the Committee
8 workshop was adjourned, to reconvene at
9 1:00 p.m., this same day.)

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1 AFTERNOON SESSION

2 1:03 p.m.

3 PRESIDING MEMBER PFANNENSTIEL: We are
4 going to reconvene. We have a very full
5 afternoon, so rather than waiting until everybody
6 gets back from the farmers market, I think we
7 should get ourselves going. Panama.

8 MR. BARTHOLOMY: Great. Thank you,
9 Chairman. We're about to move into the
10 infrastructure part of our agenda. Let me just
11 mention the presentations are provided in hardcopy
12 out in the front of the room. We're just making
13 copies of Suzanne Reed's, so those should be
14 available by the end of today's workshop. You can
15 get those, and all of these presentations will be
16 available on the Integrated Energy Policy Report
17 website, as well, for downloads.

18 So we're going to move into
19 infrastructure and conversation on infrastructure
20 financing and criteria. We spent a lot of time on
21 this in the draft staff report talking about
22 infrastructure financing policies from the federal
23 to the state level, and their role in guiding
24 certain types of growth.

25 I think we have three speakers here

1 today that are going to provide us with an
2 excellent insight on the role that financing can
3 play in shaping growth.

4 Our first speaker is John Barna, the
5 Executive Director from the California
6 Transportation Commission talking to us about
7 greenhouse gases and California's regional
8 transportation plans.

9 Thank you for joining us, John.

10 MR. BARNA: Thank you, Panama, and Chair
11 Pfannenstiel, Commissioner Tutt, it's a pleasure
12 to be here. We in the California Transportation
13 Commission have been asked to play an increasing
14 role by both the Administration and the
15 Legislature in conforming transportation planning
16 and programming to AB-32 needs, as well as the
17 blueprint planning effort, both of which have been
18 amply reviewed in your draft staff report.

19 What I'd like to do is tell you a little
20 bit about the Commission; what our role has been;
21 what our role is about to be this week. And then
22 get into trying to answer some of the questions
23 that have been posed in attachment A.

24 The California Transportation
25 Commission, like the Energy Commission, is a

1 statutorily designated, independent commission.

2 Our members, we have nine members appointed by the
3 Governor, approved by the Senate. So we have a
4 responsibility to both the Legislature and the
5 Administration.

6 We are, in essence, a programming and
7 allocation body. We leave much of the policy work
8 to the Administration and to the Legislature. We
9 presently -- well, prior to proposition 1B, the
10 \$19.9 billion transportation bond approved by the
11 voters last November, our normal workload was
12 adopting a biennial state transportation
13 improvement program, which is the state's five-
14 year program, capital program, to increase
15 capacity and through-put in the state's
16 transportation network across all modes.

17 We approved a four-year state highway
18 operation protection plan which is the major
19 rehabilitation and maintenance program that
20 Caltrans administers and operates on the state
21 highway system. And then we were the allocating
22 body for the traffic congestion relief program,
23 which was statutorily created in 1999.

24 With proposition 1B -- and let me back
25 up for a second -- those activities, on balance,

1 we were making programs. The STIP is roughly a
2 \$5- to \$6-billion program. The SHOP is a roughly
3 \$4 billion, actually close to \$7 billion, sorry,
4 program. So every two years we're adopting
5 something on the order of \$10- to \$12-billion
6 worth of program. And then reallocate to that.

7 And the major revenue sources for
8 transportation in California are the state and
9 federal gas taxes paid at the pump, as well as the
10 sales on gasoline that come through us. There are
11 also local sales tax measures and federal funds
12 that go to a variety of agencies.

13 But taking the sales tax on gasoline, as
14 well as the prop 42 dollars, and now that prop 42
15 has been fully funded the last two years, we have
16 been allocating something on the order of \$4- to
17 \$4.5 billion in dollars for projects the last two
18 years.

19 With proposition 1B we now are
20 responsible for four major capital programs, three
21 of which are entirely new. The corridor mobility
22 improvement account, which we adopted in February;
23 the trade corridor improvement fund, which is to
24 support goods movement, which we're in the process
25 of establishing with help from the Legislature.

1 State and local partnership, which we're awaiting
2 legislative direction on, are three new programs.

3 But in addition, there was augmentation
4 to the state transportation improvement program,
5 which we just adopted earlier this month. We'll
6 have a SHOP augmentation. And then there are a
7 variety of smaller programs we are responsible for
8 allocating.

9 All told, out of the 19.9 billion we are
10 responsible for either developing program for and
11 allocating, or allocating and reporting on
12 something on the order of \$12 billion out of the
13 19.9.

14 So our, in essence our workload and our
15 jurisdiction and responsibilities have doubled,
16 almost tripled, since November, moving for the
17 next three or four or five years.

18 And it's occurring at a time clearly
19 when energy issues, particularly as they relate to
20 fuel consumption, and then as it relates to
21 emission reduction, have become paramount policy
22 issues in the state, the nation and the world.

23 And when the bonds had just been passed,
24 we were asked by several environmental groups,
25 okay, so now how are you and the Commission going

1 to address emission reduction as you go about
2 implementing the bonds. And our short, flip
3 answer was, we're not.

4 And the reason we could give that short,
5 flip answer is that at least in proposition 1B the
6 projects that we would be seeing had to be in
7 conforming regional transportation plans. And
8 those regional transportation plans have to meet
9 federal air quality standards.

10 And they reflect local land use
11 decisionmaking. They reflect achieving
12 conformity, even in the extreme nonattainment
13 areas, the strategies of the regional
14 transportation plan, which are updated every three
15 or four years, need to demonstrate that they are
16 in conformity with whatever the appropriate
17 Federal Clean Air Act requirements are.

18 So we felt that we were not empowered,
19 nor were we equipped to begin developing a
20 separate standard, if you will, as it related to
21 emission reduction or even land use planning,
22 relative to implementation of the bonds in our
23 existing capital programs.

24 But what we did say is if we want to
25 have this conversation, and if we want to change

1 where we're going, the place to do that is at the
2 regional transportation level. And that is that
3 basic 20-year building block plan that takes a
4 look at the growth forecasts for a region, a
5 municipal planning organization region. And I
6 know you've spent a fair amount of time this
7 morning and elsewhere understanding what a
8 regional transportation plan is, what an MPO is,
9 and the rules and responsibilities.

10 So from our vantage point, that's the
11 place to have this conversation. Because we make
12 decisions on transportation projects that are in
13 those plans, that have come through a process of
14 local decisionmaking. And by and large, whatever
15 discretion the Commission applies is related to
16 the sufficiency of dollars to invest.

17 And in Transportation, we don't have
18 enough money to invest. And so our decisions are
19 not based on whether we think projects are good
20 projects or bad projects, it's on, with the
21 available resources we have in a given programming
22 cycle, what do we think we can suitably invest in.

23 And in this decade we've also
24 experienced severe budget cuts, as all of
25 government has, and we've had to defer, delay

1 projects and go to allocation plans. And that
2 creates some discretion on our part. It's not the
3 easiest thing to do; it's not something that we
4 like to do. But it's something that we've had to
5 do.

6 So our discretion isn't about whether or
7 not we think a project, in and of itself, is
8 meeting a variety of other objectives. It's that
9 with the dollars available can we, in fact, fund
10 that project as described.

11 So, we've said, look, if we want these
12 projects and Transportation in general to be
13 involved in achieving the objectives of the
14 Climate Action Team, for example, or AB-32, or we
15 want transportation planning and programming and
16 project development to be part and parcel of some
17 of the smart growth ideas that are contained in
18 the Governor's strategic growth plan, we have to
19 do it at this basic planning level.

20 And to that end Senator Perata had asked
21 the Commission to take a look at this. The
22 Commission is responsible for approving regional
23 transportation planning guidelines. Caltrans does
24 the staff work and helps update these planned
25 guidelines essentially to meet new federal

1 standards.

2 For example, federal transportation
3 reauthorization legislation, passed two years ago,
4 had some revised requirements. And so we're
5 updating the guidelines at that sort of technical
6 level.

7 But we haven't had a good overarching
8 review of regional transportation planning
9 guidelines since 1999. So here we are in the
10 middle to latter part of this decade with an
11 entirely different policy landscape and set of
12 objectives that presumably are going to carry us
13 through this decade and into the next.

14 And so I think the Senator was right in
15 suggesting that we take a look at this, which we
16 can do administratively. And to that end, we are
17 holding a guideline workshop kickoff effort this
18 Thursday in Sacramento at the Convention Center at
19 10:00 a.m. And your staff has been involved in
20 helping us to think through some of the topics to
21 discuss, many of which emanate from the draft
22 staff report.

23 And our charge is to take a look at what
24 is possible through the guidelines to address
25 implementing AB-32, as well as incorporating some

1 of the smart growth land use concepts that are
2 emerging out of the blueprint learning network
3 that the Administration is managing.

4 We're supposed to come back to the Pro
5 Tem by the end of the year with what we think are
6 our recommendations, not only for where the
7 guidelines can be updated, but what else we would
8 need.

9 And to that end I think this effort is
10 compatible with Senator Steinberg's SB-375. While
11 Senator Steinberg has a variety of other elements
12 to 375, as it relates to what we do, it does
13 direct the Commission to update the guidelines.
14 It does direct the Commission to be reviewing
15 project selection and making investments
16 consistent with the preferred growth scenario, as
17 described in 375.

18 I think what our effort will be is a
19 combination of some discussion about some of the
20 policy elements contained in SB-375; but also it's
21 an opportunity, quite honestly, to bring people
22 around a table who, up to this point, haven't
23 necessarily been around a table.

24 And I would say that this is a further
25 iteration on what the Administration started with

1 the goods movement action plan of bringing air
2 quality regulators, community groups,
3 environmental justice folks together with
4 traditional transportation folks and economic
5 interests.

6 That not an easy relationship to bring
7 together. But we've been very pleased with the
8 cooperation we've received from a variety of
9 stakeholders in wanting to convene this kind of
10 effort and get around a table and start to go over
11 policy objectives and implementation strategies.

12 So we're looking forward to kicking that
13 off and welcome the interaction and participation
14 of your staff and obviously, also yourselves. Not
15 just this Thursday, but on an ongoing basis. We
16 will be creating work groups and I think many of
17 the issues that we'll be grappling with at this
18 regional transportation plan level are exactly the
19 issues you're trying to discuss today.

20 And moving off of the sort of nuts and
21 bolts of what we're trying to do to sort of what
22 you've been looking at. Some of our perspectives
23 would suggest that this conversation of what you
24 to with transportation is very very similar to
25 what you do with utilities.

1 I mean, to a certain extent we're
2 getting to a point in California where -- and I
3 think this is part of the strategic growth plan --
4 mobility needs to be viewed as a utility. That
5 the transportation network is no different than
6 the networks that deliver electricity, natural gas
7 and water, as well as sewage, in that it's part
8 and parcel of where people live, where people
9 work.

10 And we've tended to take a look at
11 transportation as something different and apart
12 from other utilities. And part of that is
13 historical and part of that's cultural. And what
14 it's resulted in is unfortunately in the
15 transportation world there's less attention given
16 to demand management before making major capital
17 investments. And more, if you got a problem,
18 build it, build your way out of it. And I think
19 the build-your-way-out-of-it mentality is no
20 longer the salient approach as we move forward.

21 It's still very much part and parcel of
22 the political landscape, but I think even the
23 local electeds would have to admit that building
24 your way out of it is a short-term solution and
25 doesn't necessarily address some of the larger

1 scale issues of where people live, where people
2 work, and how you provide the mobility between the
3 two. And have a thriving economy, let alone
4 trying to figure out how you do that and at the
5 same time improve air quality.

6 And so I think that if transportation
7 can be viewed more, and mobility in particular, as
8 a utility, we can start to ask ourselves, well,
9 okay, what would you do to manage demand.

10 And if we start seeing demand management
11 strategies applied in similar ways that -- and I'm
12 not suggesting that the power companies are
13 necessarily the best analog here, but to the
14 extent that utility companies think long and hard
15 and very carefully about making long-term capital
16 decisions, and they try to eke out as much
17 capacity through demand management, and through
18 pricing and other strategies before making those
19 capital decisions, that's a strategy we need to
20 start to evolve to in transportation. If, for no
21 other reason, than we haven't applied those
22 strategies in significant ways throughout the
23 state to determine what happens if you start
24 pricing mobility.

25 What happens if we have incentives,

1 better incentives to even out demand and supply.

2 An example of this in the Port of L.A. in Long
3 Beach is a program called PierPass. What PierPass
4 has done is it's reduced gate fees for truckers in
5 the 6:00 to 10:00 p.m. time slot. So there's an
6 economic advantage to getting containers from 6:00
7 to 10:00 p.m.

8 And what that's done over the last year
9 is reduced truck trips on the 710 in particular
10 out of the Port of Long Beach by 30 percent during
11 the peak period.

12 Now, in order for PierPass to have
13 worked, there were some issues relative to labor,
14 both on the truck side as well as on the
15 Longshoremen's side. It also means that they have
16 to be recipients for that cargo. So whether
17 that's the Walgreens or the Targets or the Safeways
18 and the Vons, as well as, you know, the intermodal
19 trans-shipping facilities at the railyards.

20 But what it does show is that when
21 coordinated demand management strategies are
22 employed, and there's a price incentive, in this
23 case a significant price incentive, it will work.
24 And it will help even out some of the congestion
25 challenges, the over-demand with a constrained

1 supply.

2 We need to incorporate more of that. At
3 the same time, clearly we do need major
4 infrastructure improvements. But in order for us
5 to now make those major infrastructure
6 improvements, and at the same time be very
7 cognizant of emission reduction, we also have to
8 think of demand management. And so that winds up,
9 I think, being an area where we need to spend a
10 fair amount of time talking about it, not only at
11 the regional transportation plan level, but also
12 trying to create incentives that are acceptable to
13 the Legislature and to the Administration.

14 That'll go a long way. And, in fact,
15 that may be one of the key strategies for reducing
16 VMT, which is a key strategy that needs to be
17 employed. But how we go about reducing VMT needs
18 to be thought through very carefully.

19 I don't think it's necessarily the case
20 that by putting more buses on the road that we'll
21 necessarily see a drop in VMT. I think we're
22 going to need to combine increased transit
23 opportunities with some other demand management
24 strategies over time. And I think that's some of
25 what we're going to hear over the next six or

1 seven months.

2 There's, I wouldn't say a fundamental
3 disconnect, but there is a connection that needs
4 to be made and is sort of emerging that's part and
5 parcel to answering many of these questions. And
6 that is -- and we know this very clearly, because
7 as an allocating body, we're kind of caught in
8 this middle.

9 There are mandates that come from above,
10 from the Legislature, for examples. And yet land
11 use decisionmaking is done at the bottom. It's a
12 bottoms-up effort.

13 We are caught in the middle of that, and
14 this is what I was describing before in this, you
15 know, what are you going to do to make the
16 transportation box greener with your decisions.
17 That's a tough place for us to be because that's a
18 mandate from on top, yet we have a process of
19 making decisions that's bottoms-up. And we're in
20 the middle of that.

21 And I think that we're going to be on
22 that frontline of how we try to create some of
23 those incentives in transportation, where, as
24 someone once said, we need to start using
25 carrot/sticks. And I think that's appropriate.

1 I think that cities and counties are
2 loathe to accede their land use decisionmaking
3 authority. And our Commission, the Commission I
4 work for in particular, is not interested in
5 superseding that authority with its decisions.

6 But we need big enough carrots that --
7 and primarily through financial incentives
8 probably, to get a better coordination, and then
9 better project selection between land use
10 planning, obviously emission reduction strategies,
11 and how transportation fits that.

12 And so from our standpoint we would like
13 to have a little bit more power to reward those
14 jurisdictions that are developing good blueprints;
15 that are working their blueprints. I think we
16 need to be careful about the kinds of decisions
17 that we make as a result.

18 But I think that is that's where this is
19 heading, I think Transportation can help show some
20 ways in which the connection between the top-down
21 mandate and a bottoms-up decisionmaking process
22 might work.

23 We've been lucky in Transportation; all
24 the stakeholders generally work well together.
25 And we've avoided some big fights and acrimony

1 that might affect some other areas relative to
2 having mandates from on top and this
3 decisionmaking from below.

4 But one of the things that has helped
5 Transportation to work is that in the '90s the
6 Legislature and the then-Wilson Administration
7 realigned, shifted some of the roles and
8 responsibilities to put more authority for
9 decisionmaking and funding at the local level.

10 And some would say that there was too
11 much given to local agencies. But what was
12 occurring at that time was the state gas tax had
13 not increased; it was not increased actually until
14 1990, and then graduated to its 18 cents in '94.

15 But many counties became what are known
16 as self-help counties. And those self-help
17 counties passed half-cent sales tax measures
18 dedicated to transportation projects in their
19 regions.

20 Many of those projects are in the state
21 system. And so all of a sudden the state had been
22 the dominant player in making transportation
23 decisions and essentially implementing them as
24 they saw fit. Now, they had regional partners.
25 And the partners came with money. And they came

1 with a desire to get projects done. They had
2 constituents and voters supporting it. And they
3 were looking for a place at the table. And
4 they've been excellent partners. And the state's
5 had to adapt.

6 That model is something to take a look
7 at as we take a look at applying or trying to
8 figure out strategies, especially on the emission
9 reduction side. That it may be that a way to
10 marry the mandate from on top with decisionmaking
11 from below is to figure out some sort of scheme by
12 which counties and regions can generate their
13 revenue to deal with their problem, that
14 ultimately winds up being -- fits into a statewide
15 network.

16 And I'm not suggesting that we have an
17 easy answer for that. But we've seen in
18 Transportation how that works. And now we can
19 build on that framework and foundation to begin
20 having this conversation about, okay, you now have
21 the wherewithal, the dollars to come to the table
22 with. Now, as better land use planning occurs,
23 there's a better connection between housing and
24 development and job growth; and as we start to
25 figure out what to do on emission reduction,

1 you've got money, we've got some money. If you
2 need more money to implement your priorities so
3 they fit this greater state mandate, let's talk
4 about that.

5 And I think that that's, absent trying
6 to figure out how we fund these changes, I think
7 the tension that occurs between a state mandate
8 from on top and the resistance from below in
9 decisionmaking, is going to remain and maybe
10 exacerbate. But I think in Transportation we've
11 shown some ways to maybe ameliorate that.

12 There are just a few minutes left. I'd
13 be more than happy to answer questions. But those
14 are some perspectives and how we're involved. And
15 we look forward to working with you in the future
16 to help, and I have this offer from our
17 Commissioners to be of service and help to you, as
18 you develop strategies relative to getting the 40
19 percent target in the Climate Action Team.

20 PRESIDING MEMBER PFANNENSTIEL: John, I
21 really appreciate your being here. And I
22 appreciate your reaching out to the Energy
23 Commission to work with you on, as we all are in
24 this together. I think this is a vast improvement
25 from kind of a stovepipe way of doing state

1 government.

2 We do share the issues on how do we
3 build transportation and VMT land use issues into
4 our going-forward energy plan.

5 Very specifically, though, I want to
6 make sure I understand what you can and can't do
7 in allocating, at least the bond money, in terms
8 of the preferences for regional plans that do meet
9 certain smart growth criteria.

10 If we specified, or have you specify
11 what those criteria are, can then you give
12 preference in allocation to the plans that meet
13 those criteria?

14 MR. BARNA: Within the confines of what
15 we can do, what we have required as part of the
16 quarter mobility improvement account program, is
17 corridor system management plans. That every --
18 all 54 projects have to -- the project sponsors
19 have to submit, probably within the next 18 months
20 tends to be the average, a corridor system
21 management plan that shows that project in its
22 corridor with what else is happening in the
23 corridor.

24 And we've required that initially
25 because we wanted to see what the project sponsors

1 and Caltrans were going to do to insure that
2 whatever mobility gains were made by that project
3 were going to be sustained.

4 And so the project, itself, can't
5 sustain it, ongoing strategies, whether they be
6 demand management, whether there are other
7 infrastructure improvements that need to occur,
8 whether there are other operational strategies.

9 We wanted to say, look, the expectation
10 of the voters is that we're going to be delivering
11 congestion relief and ongoing mobility. So, it's
12 not enough just to build a new interchange, walk
13 away. And then say in five or seven years it's
14 congested, and we say, oh, well.

15 We are forcing the transportation
16 community to come back and say, okay, this is how
17 we're going to keep faith with the voters.

18 There's a secondary benefit to the
19 corridor system management plan, and that is in
20 all likelihood that'll be a vehicle for also
21 describing emission reduction and VMT reduction
22 strategies in that corridor.

23 A good example is that we've funded the
24 HOV, high occupancy vehicle, lane going northbound
25 on the 405 over the Sepulveda Pass in Los Angeles

1 from interstate 10 to state route 101, or U.S.
2 101. And that HOV lane, in conjunction with the
3 southbound, will have dramatic mobility benefits.
4 It also connects to the most congested
5 interchanges in the nation, if not the world.

6 The corridor system management plan
7 isn't supposed to be prescriptive that says, we're
8 not going to continue funding this project until
9 you show improvements in the interchanges. But
10 what it should be showing is this is what we know
11 needs to be done to sustain those mobility
12 benefits. And ultimately within that corridor
13 what kind of emission reduction strategies might
14 be employed.

15 And I don't know what ultimately those
16 incentives are, but that's where I think within
17 our constrained purview we start. What I think,
18 Chairman Pfannenstiel, I think is appropriate at
19 an appropriate juncture, is for the Legislature to
20 say, okay, now that we have the standards and
21 regulations we have to meet, the targets we have
22 to meet, then we have to fold that into the
23 decisions that you make.

24 And that's where we've been saying all
25 along that if you want us to be involved in

1 insuring emission reduction on the transportation
2 side, show us the targets. Then we incorporate
3 that not only at the regional transportation plan
4 level, but then when projects come forward to us
5 every two years, for a five-year cycle, we'll say,
6 okay, so show us where the progress is. Show us
7 what's happening in the corridor.

8 And that's where then we have some
9 discretion to say in a financially constrained
10 environment we're going to have to invest in the
11 projects that are going to be delivering not just
12 mobility but emission reduction.

13 That's how I think it works. But we're
14 going to need legislative direction in that way
15 because we don't yet have that.

16 PRESIDING MEMBER PFANNENSTIEL: Thanks
17 very much for coming in, John.

18 MR. BARNA: Thank you.

19 PRESIDING MEMBER PFANNENSTIEL: Panama.

20 MR. BARTHOLOMY: Thank you very much,
21 John. Coming over here talking about demand
22 management, you really know how to butter us up.

23 Next we are going to be blessed with the
24 presence of Gary Patton from the Planning and
25 Conservation League, where he's the Executive

1 Director. And he and some of this colleagues in
2 the environmental community have been leading an
3 effort to what's called around town greening the
4 bonds. And he'll be talking to us a bi about that
5 effort. And then some of the efforts going on in
6 the Legislature around the infrastructure bond
7 implementation. So, thank you very much for
8 coming, Gary.

9 MR. PATTON: Thank you, all, for not
10 only inviting me, but for doing this. And I know
11 that members of the Commission and the staff are
12 well aware that up until last year, as you did
13 your annual -- biennial policy reports, land use
14 wasn't highlighted at all.

15 And suddenly you're focusing right in,
16 and I've been hearing the testimony on the
17 telephone earlier. And I've heard Mr. Barna just
18 now. And you're going to hear from me. This is a
19 key way to address increased energy efficiency and
20 also to deal with the global warming crisis that I
21 think our state well understands is a real one.

22 Let me tell you what I'm going to tell
23 you before I tell it to you. I'm just going to do
24 a little bit of an introduction about land use in
25 general, and how it relates as a segue to talking

1 about greening the bonds, which was the way I was
2 featured on your agenda. And I wish I had more to
3 say about that than I actually do.

4 And then Panama asked me to talk about a
5 specific piece of legislation which I do have some
6 more to talk about, which was just mentioned,
7 Senate Bill 375 by Mr. Steinberg, which is an
8 interesting opportunity for the state to try to
9 get some carrot/sticks working in the
10 transportation, land use, efficiency area.

11 As you may know, PCL has been around for
12 42 years; and we lobby on the environment. And as
13 the name implies, we work on planning land use
14 issues, conservation issues. We work quite a bit
15 on water policy. And I think you heard from Mr.
16 Wilkinson, correctly from our analysis, that
17 revising, in a fundamental way, the water delivery
18 system in the state is also important, as is
19 revising, in a fundamental way, our land use
20 policies.

21 We've also, of course, as most
22 environmental organizations, as many and most
23 state agencies have begun to do, had a focus now
24 on global warming. And we find, as I know you've
25 been finding, that global warming is a good way to

1 tie together and integrate, as your policy report
2 title says, the various things we need to do as
3 the people of California to protect and preserve
4 our environmental resources, to stimulate a
5 healthy sustainable long-term economy, and to deal
6 with some of our most critical social and equity
7 problems.

8 So, land use plays the key role in all
9 of those things. In terms of energy use and
10 global warming emissions, what's the figure, 40
11 percent, something like that, to meet AB-32 goals,
12 has to come out of the land use transportation
13 sector. And, in fact, what we need to do is find
14 a way to implement the concept which has proven so
15 fruitful to us. First in the energy field, and
16 now more and more in the water arena. And that is
17 efficiency.

18 I actually was hoping to see Mr. Geesman
19 here today. I ran across him in a former lifetime
20 when I was a local government official, elected
21 official in Santa Cruz County. Because I was a
22 member of the board of directors of the local
23 government commission which I know you deal with
24 frequently here at the Commission. And we were
25 the local government commission on energy

1 conservation and renewable resources.

2 That was the original title. And we
3 worked with this Commission as the Commission
4 started something new in the state, which is
5 figuring out how, as we meet the challenges of
6 tomorrow, we can do with the resources of today,
7 and do it even better. And you have inherited an
8 incredible history and are perpetuating it.

9 Well, we need to do the same in land
10 use. And this very extensive and excellent,
11 although I haven't finished it, but I've gotten
12 enough through it to say it's an excellent report,
13 on the role of land use in meeting California's
14 energy and climate change goals, talks about smart
15 growth.

16 And I want to just give you, as my
17 transition on land use, a different way to think
18 about smart growth. And it's a harder-edged way
19 of thinking about it.

20 And smart growth is talking about
21 compact development and mixed uses and all of
22 those things are definitely part of smart growth
23 and would reach the kind of goals you need to
24 reach here.

25 But one way of thinking of this is

1 existing urban areas. Where has our population,
2 where have the people of the state, either at the
3 state level or locally, made an investment and a
4 commitment to the conversion of what was, at one
5 time, open space or agricultural lands. And to
6 use it in various urban ways.

7 Where we have made that commitment that
8 is an existing urban area. And those commitments
9 generally are reflected in transportation, water
10 and sewer capacity. And they can be compared to
11 existing city limits and some of the political
12 lines.

13 So, one of the keystones, it seems to
14 me, you might, as you convert this draft into a
15 final document, start thinking about is using
16 existing urban areas as an analytical tool. For
17 that's where our infrastructure investment should
18 go. That's where the energy savings can be made.

19 Because I'm here to tell you, having
20 been a local government official for 20 years,
21 although I come from a county which in 1978
22 adopted by a vote of the people a growth
23 management program that restricted future
24 subdivision and development to existing urban
25 areas as they existed in 1978, in Santa Cruz

1 County. That said all of our capital improvement
2 funds would go inside those existing urban areas.
3 And that commercially viable agricultural land
4 would not be developed or divided, period.

5 We coupled that with an aggressive
6 inclusionary housing requirement which was a
7 requirement, and we essentially had built in 1978
8 what now is talked about as smart growth. And it
9 was heralded as the thing that was going to
10 destroy Santa Cruz County. In fact, VMT has made
11 our traffic problems much worse than they should
12 have been, but we have essentially maintained the
13 footprint of where we used to be. Redeveloped it;
14 made it more dense; and density is our friend in
15 terms of energy efficiency and global warming
16 emissions.

17 And preserved and protected,
18 essentially, all of the agricultural land in that
19 county that was commercially viable in 1978. I
20 think we've lost 100 acres since 1978.

21 This can be done. And what I'm saying
22 is you drive through Fresno, you drive through
23 Bakersfield, you drive almost anywhere but
24 San Francisco, and maybe even in San Francisco,
25 you certainly can do it in Sacramento, and while

1 these blueprints are great compared to the current
2 state of affairs, they will continue to allow the
3 energy-using sprawl that is undermining the
4 integrity, not only the environment, but the
5 economy.

6 And so think about looking at existing
7 urban areas and when you can't do it there, then
8 maybe let's think about something else.

9 You know, the Governor, pardon me, not
10 the Governor, the former Governor, current
11 Attorney General, has recently sued San Bernardino
12 County because their general plan didn't,
13 according to him, meet the test of global warming,
14 considering global warming.

15 There's another opposite example, a good
16 example, almost ready for adoption now, which is
17 in Marin County, which specifically incorporates
18 global warming emission reduction policies into
19 the general plan.

20 And what I think the Attorney General's
21 lawsuit is about is whether on a project-by-
22 project basis, because that's how local
23 governments make these land use decisions, there's
24 going to be a way to try to analyze and hopefully
25 therefore reduce global warming, and therefore,

1 energy-using experiences.

2 And the Marin County example, once
3 adopted, I think it will be, says it can be done.
4 And if you think about the AB-32 goals, if we're
5 going to roll back emissions and energy use
6 associated with emissions to 1990 levels by 2020,
7 while we continue to grow by this astronomical
8 population growth rate, every new project has to
9 be at least neutral. Neutral.

10 We can't keep having more and expect to
11 go backwards. It doesn't work. We are in a
12 crisis. Polar bears are falling through the ice.
13 Next year more will fall through the ice. We are
14 going to have to act like something needs to be
15 really changed.

16 And in the land use arena what we always
17 find, as local elected officials, is if you can
18 get three votes on a board of supervisors to
19 convert this or that open space or agricultural
20 land to urban development, your land goes up, as a
21 property owner, in value by ten times or more.
22 That is what drives sprawl. And that is the enemy
23 of what we're trying to do here.

24 And so we need to find very effective
25 carrot/sticks, indeed, if we're going to hold that

1 down. Because the monetary pressures to just make
2 an exception here, there and everywhere are
3 incredible. And they're never resisted. So when
4 I get to SB-375 I'll show you how that helps, but
5 doesn't solve the problem.

6 Let me talk about greening the bonds.
7 You know 40 billion, \$42.7 billion in borrowing at
8 a time we can't balance our own budget, says we're
9 going to spend money on transportation; we're
10 going to spend it on housing; we're going to spend
11 it on education; on flood control; and on natural
12 resource protection efforts of various kinds.

13 And PCL, along with about 50 different
14 groups, including typical traditional
15 environmental groups, and a lot of the so-called
16 environmental justice groups that come out of
17 local communities, whose infrastructure is already
18 way over-taxed and they're bearing the burden of
19 it, came up with a set of ten principles before
20 these bonds went on the ballot; and tried to get
21 the Legislature to put them in there as guiding
22 language. And we didn't make it.

23 And we're still working on it. The
24 local government commission that I mentioned
25 earlier is working on it; so local governments are

1 working on it. And various groups are working on
2 it. And obviously state agencies might well work
3 on it, including the Energy Commission.

4 In case you hadn't noticed I just
5 reviewed, for preparing my remarks today, what I
6 consider to be the single best sort of short
7 summary of these bond measures. And that's
8 something -- I'm trying to get you the exact title
9 of it -- put out by the Legislative Analyst's
10 Office. And it's called, Increasing Effectiveness
11 Through Legislative Oversight Implementing the
12 2006 Bond Package, published in January 22nd.

13 And when you look at that it lists all
14 of the various state agencies that are going to be
15 involved in the bond implementation effort. And
16 that's on page 13. Unfortunately the Energy
17 Commission isn't listed.

18 Just inject yourselves in that effort
19 because, as this whole hearing demonstrates, the
20 energy efficiency impacts of good investments can
21 make all the difference.

22 Transportation, existing urban areas,
23 serving areas that are blueprint friendly, that
24 would be a measure that if it were in, if it were
25 a restriction, if you will, if it were something a

1 condition where money would go, it could help
2 direct investments that would stimulate the right
3 kind of land uses instead of perpetuating the bad
4 kind.

5 In flood control, if we could prevent,
6 you know, using these funds to add to the lands
7 that would be possibly developed for sprawl, and
8 just protect the areas that are already existing
9 urban areas, that would be along the same lines.

10 Housing, there are two bills that are
11 dealing with this. One of them Senator Perata's
12 bill, SB-46, is relatively good, but it's such a
13 small amount of money considering 40 billion, 850
14 million dollars in the urban in-fill account that
15 is getting close to what I think might be a good
16 use of that money to really meet the goals that
17 you've been talking about in this hearing. But
18 that's minor.

19 Let me just link you to education. One
20 of the great problems in land use sprawl
21 development is the pioneer efforts of schools who
22 are looking for cheap land. They also don't have
23 to get any local government approvals. They have
24 to tell you they're doing it to you, but they just
25 go and do whatever they want to do.

1 Could we not, using bond monies, make
2 the investment, which means spending more money,
3 to put the schools where they ought to be so
4 people could walk to school, like I did. Because
5 the VMT reduction that would come out of simply
6 getting all of our elementary and high school kids
7 back where they could walk and bike to school
8 would be actually -- you would notice it from a
9 satellite. It would be significant. And nobody
10 has focused on that. The Energy Commission could
11 well do that.

12 Now, let me talk to you about SB-375,
13 which is a bill that attempts to promote the so-
14 called blueprint idea, which I know you know
15 about, at least generally. And which tries to
16 help achieve what the gentleman just before me was
17 talking about, in terms of getting good land use
18 and transportation planning happening.

19 It is not -- truly it is a carrot/stick
20 approach. I had never heard that before, and
21 there are some constraints in it. But it's sort
22 of an incentive mostly. It's a carrot mostly with
23 a little stickiness to it.

24 The concept of SB-375 is that
25 mandatorily required regional transportation

1 plans, which would still be done at the regional
2 level, so you wouldn't have a state top-down
3 hierarchy happening, would now have to include a
4 preferred growth scenario. Preferred growth
5 scenario would be another name for what has been
6 called blueprints, only the blueprints, which are
7 purely voluntary, and therefore not regulatory,
8 and therefore they sound good until somebody wants
9 to do something else, and they don't have any real
10 bite to prevent them from doing that.

11 The preferred growth scenario would be a
12 required part of the regional transportation plan.
13 And it would have to do two or three things that
14 are constraining or get you to where you need to
15 go.

16 One, it would have to protect natural
17 areas, habitat areas and commercial farmlands so
18 you would not use them in unless there were no
19 other decent alternative. It would, by the way,
20 have to meet the housing needs of the region,
21 which is something housing people care about. And
22 does seem very legitimate to planning
23 organizations like mine.

24 And it would have to carry out AB-32
25 targets for the region in terms of transportation

1 reductions.

2 Now, AB-32 implicitly says the ARB is
3 going to have to find a way to reduce emissions.
4 And we know that means VMT. And we know that
5 means transportation land use. But it doesn't
6 explicitly say that anywhere. This would
7 explicitly say it.

8 So, to the extent that the ARB does a
9 good job, that gets incorporated in the preferred
10 growth scenario. And then all, not just bond, all
11 funding flowing through the State of California
12 would have to be consistent, as it is now, with
13 the regional transportation plan. But, it's a
14 regional transportation plan that now mandatorily
15 includes a preferred growth scenario which has
16 this smart growth component as part of it.

17 Furthermore, if, as a local government,
18 you're not required to do this, but if you, as a
19 local government, would get your general plan in
20 conformance -- and conformance means, by the way,
21 not that it includes it, but that it doesn't go
22 beyond it, so it says, hey, you're consistent with
23 the preferred growth scenario when you don't
24 provide more transportation infrastructure than
25 you need to achieve what's outlined there.

1 If you did that, as a local government
2 you would have some permit processing speed-ups
3 under CEQA. And you would have some other
4 inducements to do, you know, to make your life
5 easier as a local government. So there'd be a
6 built in inducement to do it. Kind of another
7 little carrot.

8 For one thing you would do is it would
9 eliminate level of service standards in the urban
10 areas, which would help let developments that we
11 know have higher density, therefore better
12 transportation possibilities go ahead.

13 Now, this is a good idea; PCL supports
14 this bill. It is a planning effort; it is a long-
15 term effort with several stages of planning, but
16 it does show promise. Ultimately I think we're
17 going to need to be able to do something that
18 operates at the project level, and that gets me to
19 my specific concluding remark for the Commission.

20 One of the things that your draft report
21 talks about is further research and analysis on
22 the quantification and modeling of how we get from
23 a concept like the ones I've been talking about to
24 the kind of thing the Energy Commission typically
25 does, which is being able to measure things with

1 numbers.

2 Because energy and electric utility
3 usage and the things you deal with can be
4 measured. If the Commission, and I think you
5 probably want to work maybe with the CTC and
6 Caltrans, certainly with the ARB, maybe also with
7 the PUC, would be able to develop a model that
8 could actually in a provable way, so it would have
9 to be rigorous, it could show what would the
10 difference be between this kind of development and
11 that kind of development in terms of energy usage,
12 and hence, greenhouse gas emissions.

13 That would then become a required
14 analytical tool, whether you tried to make it that
15 or not, through the California Environmental
16 Quality Act. And CEQA, which is PCL's biggest
17 commitment in the legislative arena, is protect
18 and advance CEQA. That law says when you do a
19 project that might have an adverse impact on the
20 environment, you have to think about alternatives.

21 Well, you can't think about it unless
22 you can understand it. And you can't understand
23 it except theoretically without a model that can
24 quantify.

25 I would put that as a very high

1 priority. And I hope the Commission will think
2 about that as one take-away from my comments here
3 today. And I will say thank you again for letting
4 me comment here today. And certainly, I'd answer
5 any question in the half a minute I have left,
6 having used up my allotment.

7 PRESIDING MEMBER PFANNENSTIEL: Gary, I
8 want to say thank you very much. Both great
9 insights, and I think very helpful observations.

10 You talked about in Santa Cruz whatever
11 the year was you decided --

12 MR. PATTON: Yeah, '78.

13 PRESIDING MEMBER PFANNENSTIEL: -- '78,
14 you decided to just, quote, make your investments
15 in the urban core.

16 MR. PATTON: Correct.

17 PRESIDING MEMBER PFANNENSTIEL: How do
18 you relate that to the Inland Empire where there
19 is no urban core? Where there are developments
20 scattered about, residential developments here,
21 and commercial developments here. What's the
22 parallel to that?

23 MR. PATTON: Well, that's why I actually
24 tried to bring up this idea of existing urban
25 areas where water, sewer and transportation exist.

1 Now, in the urban empire -- Inland
2 Empire and other -- urban empire, I don't know
3 it's that urban -- Inland Empire and other similar
4 areas in California, and they're not just in
5 southern California, they're here, too.

6 A lot of the development is this
7 disjointed single use, monoculture of low-density
8 residential and then monoculture of Walmart
9 shopping center, monoculture of civic governmental
10 buildings, all the uses separated.

11 And you've seen in your staff report and
12 heard from people that, in fact, there was a
13 gentleman this morning, I'm forgetting now who it
14 was, it may have been the smart growth America
15 guy, who basically said we've found in our study
16 that if you can just get the uses back together,
17 even without really well-planned communities, it
18 can make a very significant difference in VMT.

19 What I guess I would say is -- Santa
20 Cruz County's smaller, so it's not as good a
21 direct example, but our experience is that if you
22 can hold the line on the option to go out, there
23 is a demand generated from the private market. So
24 we're talking about private money.

25 I mean you can use the public money, but

1 what most of the money in our economy is private
2 money. And so if you can get them to reinvest in
3 redevelopment you will then start finding that,
4 for instance, the somewhat bedraggled shopping
5 center turns into a barber shop, Blockbuster, 35
6 more apartments than you ever would have believed
7 could be there, including an inner courtyard
8 garden and a tot-lot. And all of that can take
9 place in something you can't even believe could
10 hold more than three houses.

11 And that happens over time. It's been,
12 what has it been, 20-plus years in Santa Cruz
13 County. And the areas that we had existing kind
14 of low, kind of low-level urban development, but
15 there was a commitment to urban development, are
16 now sharpened up.

17 They got sidewalks so people can walk
18 more easily. They've got these mixed uses moving
19 into the neighborhoods. They've got increasing
20 densities. They've got increased parks coming
21 from public investment. All their streets are
22 better. They've had their water and sewer systems
23 renovated.

24 And we've got to make the schools piece
25 go there, because people want those good schools.

1 Without those good schools they don't want to live
2 there.

3 But I think in the Inland Empire and
4 similar places, Fresno, places like that in
5 California, if we could find a way to say, let's
6 reinvest, invest in our existing urban areas, even
7 though they are poorly planned from the inception,
8 within about 20 years we would find them
9 converting to the kind of thing that was talked
10 about this morning.

11 So, I really do think it works based on
12 admittedly an atypical experience in Santa Cruz
13 County. But I don't see logically why it wouldn't
14 work anywhere.

15 PRESIDING MEMBER PFANNENSTIEL: Thank
16 you very much.

17 MR. BARTHOLOMY: Thank you very much,
18 Gary, for your insights. Although I do think I
19 like John's carrot/sticks better than your sticky
20 carrot.

21 We are now being joined by Bridgette
22 Tollstrup from the Sacramento Metropolitan Air
23 Quality Management District. She will be talking
24 about their work with SACOG and local governments
25 in the Sacramento area around the regional

1 transportation plans, and some of her work around
2 planning efforts over at the Air Quality
3 Management District.

4 MS. TOLLSTRUP: Good afternoon. My name
5 is Bridgette Tollstrup and I am the Program
6 Coordination Division Manager at the Air Quality
7 Management District. And this afternoon I'd like
8 to review for the Commission how air districts fit
9 into the California team that's addressing the
10 global warming challenge. And offer some
11 suggestions as to how districts can be even more
12 effective agents in the area of smart growth and
13 land use planning.

14 There are 35 air districts in
15 California, ranging in size from South Coast Air
16 District with over 600 employees, to some very
17 small county districts with less than one
18 employee.

19 While air districts have initially
20 focused on regulating stationary sources of air
21 pollution, they accomplish many other missions
22 today. And many of them are directly related to
23 reducing greenhouse gases.

24 As climate change becomes a larger
25 priority at the state level, local actions

1 involving air districts will become increasingly
2 important.

3 This is a busy slide that's intended to
4 illustrate the various state and local agencies,
5 businesses and community groups and others that
6 the air districts interface with in the normal
7 course of doing our business.

8 These contacts will provide
9 opportunities to outreach about greenhouse gases
10 and to encourage or support mitigation strategies.
11 Additionally, many California air district
12 representatives have local jurisdiction elected
13 officials on their board of directors.

14 District already regulate several
15 greenhouse gases; ozone, NOx and methane are all
16 greenhouse gases. Reduction from existing
17 district regulatory actions help the overall goal
18 of reducing the impact of global warming on our
19 state and nation.

20 Districts also regulate fine particulate
21 matter including black carbon. These pollutants
22 are also covered by district's CEQA and incentive
23 programs, and I'll talk a bit more about those in
24 a moment.

25 Here are several activities that were

1 specifically mentioned in the 2006 Climate Action
2 Team report as action areas where districts
3 already have direct roles. We already collect
4 process information that could be used to quantify
5 greenhouse gas emissions. We have engineering and
6 compliance inspection staff familiar with the
7 largest emission sources.

8 Districts in California regulate the
9 largest 329 businesses, including those on the
10 ARB's list for early action for greenhouse gases.
11 From 2004 to 2006 districts performed nearly 7000
12 inspections of these facilities.

13 I've already talked about the
14 coordinating activities available through local
15 districts, but air districts also have
16 coordination mechanisms through our interactions
17 with the Air Resources Board, and between air
18 districts through the local air district
19 association, which we call CAPCOA.

20 Air districts have ongoing relationships
21 with the metropolitan planning organizations that
22 prepare transportation plans like SACOG here in
23 Sacramento. These efforts support and encourage
24 development of smart land use and transportation
25 system patterns called blueprint.

1 We have coordinated development with our
2 MPO to coordinate the metropolitan transportation
3 plan with our state implementation plan for ozone.
4 That plan will capture the benefits of smart
5 growth in our plan, and set conformity budgets
6 accordingly.

7 This slide lists many of the existing
8 air district programs that provide greenhouse gas
9 reductions. Air districts have developed model
10 ordinances for idling restrictions, and enforced
11 the state's idling rules.

12 State law required air districts to
13 permit agricultural operations and our rules
14 include manure management strategies. Other air
15 district rules limit methane emissions from
16 landfills and leaks from oil and gas systems.

17 We also govern the resource recovery
18 facilities at landfills

19 District incentive programs encourage
20 the use of alternative fuels. New programs will
21 encourage fuel economy improvements for trucks and
22 port electrification. Port electrification
23 strategies and urban forest strategies will also
24 be included in our state implementation plan.

25 Districts have a significant role in the

1 CEQA process. And sometimes direct regulatory
2 authority in reducing the impacts of land use.
3 This here on this slide is the citation of
4 Sacramento's authority to mitigate the indirect
5 emissions associated with new land uses.

6 Similar language exists for other
7 California districts. And several California
8 districts are exploring, really for the first
9 time, exercising the authority that's provided by
10 this language.

11 Recently the San Joaquin Valley Air
12 District was explicitly required by state law to
13 assess fees from land use development to mitigate
14 their emissions impact. But their indirect source
15 review rule is currently being challenged.

16 This slide here shows a little bit more
17 information about Sacramento County's CEQA
18 mitigation program that the Air District
19 administered. The construction requirements for
20 NOx and particulate matter generally require the
21 use of the cleanest equipment which supports early
22 replacement and retrofit of older, high-emitting
23 equipment. Operational mitigation refers to the
24 emissions associated with finished land use
25 development projects. And a 15 percent mitigation

1 requirement is generally met with VMT and trip
2 reduction strategies.

3 In addition to reducing criteria
4 pollutants and helping to meet state and federal
5 air quality requirements, these strategies also
6 provide co-benefits for reducing greenhouse gases.

7 In order to meet the 15 percent
8 operational mitigation requirements the Sacramento
9 District has developed a list of about 80
10 mitigation strategies. And here's a sample of
11 some of the strategies that address energy use and
12 trip reductions.

13 This slide lists some recent innovative
14 air district activities. We've built on some
15 previous Energy Commission studies for urban heat
16 island to develop tailored strategies for
17 Sacramento. We expect that these strategies will
18 help guide jurisdictions to design specific tree-
19 planting strategies that provide the greatest air
20 quality benefits for Sacramento.

21 The Sacramento area originated the Carl
22 Moyer vehicle incentive program strategy in the
23 mid-1990s to meet our 1994 SIP commitment.
24 Currently we spend about \$10 million a year to
25 reduce NOx emissions, and we achieve co-benefits

1 of CO2, as well. These strategies are being
2 expanded throughout the state and nationwide.

3 Recently the Air District is partnering
4 with the local government commission to sponsor a
5 Sacramento regional greenhouse gas outreach
6 effort. And a workshop is planned to occur
7 October 11th. We have ongoing outreach
8 opportunities throughout the state and in the
9 nation to highlight the existing district
10 programs.

11 District roles will continue to grow in
12 the future. A recent Supreme Court case, EPA was
13 chastised by the court for not accepting
14 responsibility for regulating greenhouse gases.
15 When EPA begins to fulfill that responsibility
16 local districts will be required to add greenhouse
17 gases to their regulatory oversight. Particularly
18 with relation to the largest air pollution
19 sources. Those sources are required to obtain
20 EPA-approved permits. And that program is
21 administered by local air districts.

22 The Air Resources Board is also likely
23 to utilize the expertise and staff available at
24 local districts in some role, but that picture
25 will become more clear through this year.

1 Now, I'll get to the question of what
2 more is needed. Local communities need help
3 developing guidelines and thresholds for
4 greenhouse gases. Reduction strategies can be
5 included in local general plans, and guidelines to
6 support general plan amendments would be useful.

7 Quantification protocols are needed to
8 capture the benefits from local action. And state
9 funding processes should include criteria that
10 support and encourage greenhouse gas reduction
11 strategies.

12 And I'd like to echo earlier comments
13 that local agencies would like to work more
14 closely with schools to encourage efficient design
15 and location of new school projects.

16 I'd like to close with a statement about
17 local air district programs, innovative programs
18 like the one here. In the air quality arena,
19 innovative strategies developed at the local
20 district level have been an essential part of the
21 success thus far in reducing air pollution here in
22 California.

23 And continuing this progress is a
24 daunting challenge, as is the even larger
25 challenge that we face in reducing greenhouse gas

1 levels. And we believe that local community and
2 district ideas will be essential in generating
3 innovative and effective programs, just as the
4 state programs will be essential in supporting
5 national and international efforts.

6 Thanks for the invitation to present our
7 ideas to this Committee, and I'd be happy to
8 answer any questions.

9 PRESIDING MEMBER PFANNENSTIEL: Thank
10 you for being here, Bridgette. Thanks for your
11 ideas.

12 All I can say, I don't have any specific
13 questions, but I would offer that I absolutely
14 agree with you that the solution is going to come
15 from the local level. That we need to provide
16 local jurisdictions whatever tools and help they
17 need to make this work. In some cases it's going
18 to be money; in other cases it's going to be
19 information or analysis.

20 So we need to be partnering with
21 everybody to try to figure out what is going to
22 make it work. I don't think there's a single
23 answer to this.

24 So, thank you for coming and sharing
25 your perspective.

1 MS. TOLLSTRUP: Thank you.

2 MR. BARTHOLOMY: Thank you very much,
3 Bridgette. Not only an impressive presentation,
4 but she just got back from a three-week vacation,
5 only her second day back. And so I know I can
6 only talk about my vacation after that, at that
7 point. So, great presentation, especially
8 considering the context.

9 We are now moving into a part of the
10 agenda on utilities and the role of the utilities
11 and local governments. Before we hear from Bev
12 Alexander from the Pacific Gas and Electric
13 Company, I would also like to say that we will be
14 taking public comment at the end of this workshop.

15 And if you'd like to make any comments,
16 please fill out the blue cards towards the front
17 of the entrance of this room; and hand it to
18 Allison there in the back of the room waving her
19 hand. Right there. And she'll be happy to take
20 that for you and give it to the Chairperson so
21 that we may hear your public comments.

22 We're now moving into the utility
23 section. And there's actually quite a bit of
24 utility leadership going on around local
25 government planning, not just energy efficiency,

1 but also in smart growth activities, as well.

2 And we're going to hear from three of
3 the investor-owned utilities this afternoon,
4 starting with Bev Alexander from Pacific Gas and
5 Electric. So, thanks for joining us, Bev, and
6 please come and testify.

7 MS. ALEXANDER: Thank you so much. I
8 would just like to join the other speakers in
9 complimenting the Commission on this tremendous
10 interdisciplinary approach that's being taken to
11 smart development and energy use. And also
12 compliment you on your choice of art. If these
13 murals are any indication, our children already
14 know where we need to go. So, it's very
15 encouraging looking at them.

16 One of the ways that smart development
17 is also being talked about is with the phrase of
18 sustainable communities. And so that's the theme
19 that PG&E has been looking very much at in terms
20 of how to best take a leadership role as a utility
21 and be of service to the state in combatting
22 climate change.

23 PG&E recently took -- just about a year
24 ago took a very aggressive position in the
25 industry on taking on climate change. So Peter

1 Darbee took it on as a personal initiative, and
2 has directed the company that way, the new
3 chairman.

4 And so that means not just tackling
5 PG&E's own emissions from its energy sources, but
6 trying to step out and help with policies and
7 programs in the state that affect climate change,
8 particularly when it comes to infrastructure.

9 So where that links to sustainable
10 communities is as people look at developing, one
11 of the early companies that they come to to talk
12 about that are the utilities, the phone and the
13 water and the garbage and the electric and gas.

14 And so what PG&E is increasingly finding
15 is developers coming to it asking for advice on
16 how to put together a sustainable community. And
17 it finds itself in that position as an adviser,
18 just by virtue of the fact that it's an
19 infrastructure company, as well as the fact that
20 it's been doing energy efficiency for 30 years.

21 So, as we all know, the ideal of a
22 sustainable community is almost utopian with
23 balancing economy, equity and the ecology, you
24 know, preserving what we do today for the
25 generations of the future, which is why I

1 reference the art. And having everybody and
2 everything be healthy, all the plants and all the
3 people. You know, it's like, gosh, if we could
4 live that way wouldn't that be fabulous.

5 So I think one of our greatest
6 challenges, both in the private sector as well as
7 the public sector, is putting flesh on those
8 bones. And saying what does that actually mean in
9 terms of what people actually do. And those are
10 the questions that the developers are bringing to
11 PG&E. I'm interested; I'm supportive; now what do
12 I do.

13 And so I think that -- I was apologizing
14 for not putting the policy recommendations more
15 clearly in the presentation -- I think that if we
16 had any overarching recommendation it would be
17 that the Commission continue to do on its own and
18 in partnership with all the other entities, making
19 this actionable for the public. Whether that's
20 through education incentives, and everything else.

21 So, specifically, and I won't go over
22 this in too much detail, because so many other
23 speakers have covered it, it's reducing land
24 consumption impacts, automobile dependence,
25 stormwater runoff, using nontoxic recycled

1 materials with low embodied energy, building
2 energy efficiency and renewables into communities.
3 All of those things, encouraging pedestrian
4 activity, et cetera.

5 So what we found is that whether it's
6 new development or retrofit developments, really
7 key players are, as Jackie keeps pointing out --
8 sorry, Chair Pfannenstiel keeps pointing out, are
9 the people who bring private money to the table
10 and are actually doing this for a living.

11 And so PG&E has done some market
12 research around what is necessary to make
13 developers take more of a sustainable posture in
14 what they're doing. And we're finding several key
15 things.

16 One is that education is absolutely
17 critical. They don't know what to do, and the
18 public doesn't know what to buy. And so they're
19 saying, don't just educate us, as a developer
20 speaking. They'll come in and say, I want to do a
21 sustainable development, what is it.

22 But then they say, if you want the
23 public to buy my houses, I need the public to buy
24 my whatever-it-is kinds of buildings,
25 infrastructure, whatever. They need to know why

1 it benefits them. So, increasing awareness around
2 the benefits and value proposition for everyone is
3 clearly a function that we can all help with and
4 do more about.

5 And then, as I mentioned, they're
6 craving a clear definition. If I'm going to
7 exceed -- we have developers coming and saying, I
8 want to exceed Title 24 by 10, 20, 30, 40 percent,
9 I just don't know how to do it.

10 And then integrating all the different
11 technologies, whether it's maximizing energy
12 efficiency, orienting the house so that I can
13 catch the most sun, but I still do passive cooling
14 and the landscaping and the street orientation,
15 all of that. And then if I'm going to do
16 community solar, do I put it in the middle, do I
17 put it on the outside. How does that affect how
18 PG&E builds the infrastructure.

19 These are all questions that we're daily
20 having dialogue around that. I'm here for Darren
21 Bouton because he's the manager of sustainable
22 communities at PG&E, and is in such high demand
23 that we can't get him everywhere. We want to
24 multiply him times ten. So we all kind of have to
25 pinch-hit for him.

1 And it's also navigating through
2 unchartered waters. Whether those waters are with
3 local government, whether those waters are through
4 rebate programs, whether those waters are through
5 just the design process with all these different
6 architects, they want sort of sustainable account
7 reps, if you will, to chart them, beginning to
8 end, through the whole process.

9 Very interested in renewables. Very
10 open to ownership models. And interestingly,
11 financial incentives are helpful, but one of the
12 limitations of the current programs is that
13 there's such a short time horizon that often it
14 doesn't work for the development cycle.

15 So, as PG&E looks at building a better
16 mousetrap here on a sustainable community program,
17 it would be expanding the physical scope from
18 buildings where we've tended to focus one building
19 at a time, to neighborhoods, communities and
20 cities. So expanding the physical scope of
21 analysis, as well as expanding the temporal scope.

22 Much of the rebate programs are within a
23 year; a lot of the state's energy goals are one
24 year, two years, three years. The sustainable
25 communities we're looking at, some of them have

1 buildouts over 50 years. So it's quite a
2 different temporal landscape than what we're used
3 to.

4 And then interestingly, as we all went
5 through the California energy crisis and go so
6 fixated on peak electric, when you look at a
7 carbon footprint it actually has a lot more to do
8 with gas. So we're all so stuck on peak electric
9 that we're looking more at district heating and
10 cooling.

11 Actually, when we did an analysis of the
12 sample community in the valley, it turned out that
13 space- and water heating were the biggest drives
14 of carbon beyond many of the -- and we're all
15 thinking solar, you know, and actually going, oh,
16 thermal solar maybe more than photovoltaics. So,
17 all of those kind of subtle shifts in mindset are
18 very important.

19 So what PG&E's looking at is all of the
20 existing programs are down here on the bottom
21 which tend to be building-by-building, or
22 customer-by-customer. And so they're looking at
23 how could they wrap education, the same basic
24 tools, education, incentives, technical assistance
25 and demonstration projects, but do it at a bigger

1 physical and longer temporal scale.

2 So, for example, possible incentives
3 might be to pay lead registration certification
4 fees to encourage people to do lead building and
5 lead neighborhood development. Underwriting
6 sustainability planning tools. Whether that's for
7 local government, planners or schools, or
8 developers.

9 Different kinds of incentives for
10 innovation. More zero-energy buildings. More
11 carbon-neutral buildings. Ways to reduce, as has
12 been increasingly talked about, urban heat island
13 effect.

14 So those are all different kinds of
15 incentives on top of the incentives that are
16 already being offered by utility programs in
17 energy efficiency and solar.

18 Other same kinds of technical assistance
19 again on a grander scale. Project planning,
20 siting, infrastructure, onsite generation, goal
21 setting, measurement methodologies, general plans,
22 other kinds of climate action plans. Assisting.
23 We find people are hungry for assistance through
24 that process.

25 And bigger educational opportunities.

1 PG&E runs three different education centers, so
2 maybe offering green building and sustainability
3 101, technical design classes, sponsoring events,
4 community education centers, and even PG&E
5 sustainability centers located throughout the
6 service territory. These ar the kinds of ideas
7 that are being brainstormed at the company.

8 In addition, I think one of the earlier
9 speakers mentioned, and it has come up a couple
10 times, there's nothing like actually seeing it.
11 Whether that's on the CAD drawing or in real life.
12 And so literally capital investment and incentive
13 for innovation on projects that people can go
14 visit and feel it and taste it, and say, I want to
15 do one of those; or I want to live in one of
16 those. With all the different kinds of
17 technologies that would be included in that.

18 So, an example of this is right now I'm
19 working with PG&E, which is again why I'm here as
20 a spokesperson today, on Quay Valley, which is a
21 huge planned sustainable community near
22 Bakersfield. It's just in the very very early
23 stages of development. It would be one of the
24 largest, if not the largest in the United States,
25 assuming it goes forward to full buildout.

1 They have a very aggressive vision to be
2 a net electricity provider. Completely maximizing
3 energy efficiency, rooftop solar, built-in energy
4 management, all of this, everything we've
5 mentioned; street layout, building layout,
6 landscaping, appliance plug load, water use, you
7 know, different kinds of economics. Every home is
8 a smart home. Cleaner vehicles. And educational
9 collaboration with local university.

10 And we are literally starting with a
11 blank sheet of paper. PG&E's been hosting
12 design -- we're at such an early stage.
13 PowerLight, SunPower, a number of Best Buy,
14 Whirlpool, people are at the table. And we're
15 just sitting there with blank pieces of paper
16 trying to design this.

17 And so how nice it would be to have more
18 prototype so you didn't have to always start with
19 a blank piece of paper. And so this has been a
20 very exciting and fun project.

21 And I know another wonderful project,
22 the Chula Vista research project, we will be
23 closing the day with that. We're extremely
24 excited to be invited to participate in that. And
25 looking forward to the kinds of prototypes that it

1 will produce.

2 So I think the next steps would be PG&E
3 is developing an application to submit to the CPUC
4 for funding. There is not currently funding for
5 this kind of activity within the utility. And
6 would love to partner with the Energy Commission.
7 In fact, Gina Barkalow and I have already had
8 conversations on how can we take what's happening
9 with Chula Vista and extend that into different
10 kinds of climate zones within the PG&E service
11 territory, particularly the hot inland valley
12 where we see so much construction. And say how
13 can we all partner together to develop and promote
14 this kind of making this more actionable for
15 everybody.

16 And so we would very much like to
17 continue conversations with the CEC on taking the
18 lead on a project like that.

19 So, with that, I'll -- questions and --

20 PRESIDING MEMBER PFANNENSTIEL: Bev, I'm
21 delighted to have you here. It's so good that
22 PG&E is working on this, and I'm really delighted
23 that you're involved in it.

24 You heard me earlier asking about how to
25 get private capital into this. Now, PG&E's

1 involvement will be through ratepayer money
2 presumably that the PUC will decide that this is a
3 valued utility activity.

4 And so you'll be going out working with
5 the community, trying to develop the right
6 structures, and whether it's a whole new planned
7 community or in-fill in existing communities.

8 How do you see bringing the private
9 capital into this, though?

10 MS. ALEXANDER: I'm just going to use
11 Quay Valley as an example, because it's been a
12 very interesting and exciting process. The leader
13 of it has set a vision; he's sort of a visionary
14 leadership developer person.

15 He's been bringing in some fairly big
16 names. You know, I had mentioned Best Buy,
17 Whirlpool, SunPower, PowerLight, with the view of
18 let's do something right. Let's figure out how to
19 make it profitable. And let's figure out how
20 working together we can make the whole greater
21 than the sum of its parts. So it's very much the
22 same interdisciplinary approach that you're taking
23 here.

24 And what we're finding is people are
25 conceptually very interested in planning. I think

1 that there's such a buzz, so many people have said
2 the stars are aligned, there's such a buzz over
3 sustainable communities, carbon, climate change,
4 all that, that lots of people are trying to figure
5 out -- and this sounds crass, but it's the way the
6 world works, how to make money off of it.

7 And so there's an enormous interest in
8 can I make a living and do the right thing. So I
9 think there's -- that's a happy thing, to see
10 those stars line up.

11 So what we're looking at is, I think
12 something that would be very helpful is so far
13 today we've talked a lot about physical modeling
14 and physical tools, I think we need to add the
15 financial tools. And I know the Chula Vista
16 research project is talking about this.

17 We need to be able to map money flows so
18 that everybody sees they can actually run their
19 business and do the right thing, and not have to
20 have them all become nonprofit entities. Because
21 then they'll disappear and they'll go do something
22 else.

23 So I think it's must like the revolution
24 that we saw with computers that now produces -- I
25 have a computer in my purse in the form of a

1 Blackberry. I think that if we can get, continue
2 to foster that kind of excitement, that kind of
3 financial modeling, explore -- even the utilities
4 need to explore different business model to
5 actually make this work, and not hurt the
6 nonparticipating customers.

7 So, that's where I would encourage. I
8 don't know how much the CEC wants to get into
9 financial modeling, but I think some of that could
10 be helpful.

11 PRESIDING MEMBER PFANNENSTIEL: Back to
12 the question of PG&E's role, then, and perhaps a
13 business model opportunity there. PG&E -- I don't
14 remember anymore what the numbers are, but a lot
15 of money every year in distribution capital.

16 MS. ALEXANDER: Right.

17 PRESIDING MEMBER PFANNENSTIEL: And that
18 is obviously growth, consumer growth driven. You
19 go where people are -- where developers are
20 building communities, and you put in the
21 infrastructure. And so you have a major
22 commitment, a major financial investment in where
23 this growth is taking place.

24 Is there a possibility of influencing
25 the developers or where those are going? I know

1 that PG&E is a major part of what happens when a
2 developer decides to go into one area or another.

3 It seems like there's some involvement
4 there that can be used to, I think as we heard,
5 you know, from Gary Patton, the idea of trying to
6 invest in a central city rather than out in the
7 sprawl areas.

8 MS. ALEXANDER: Yeah, I thought it was
9 very interesting the draft report taking on the
10 line extension rules, for example, and say how
11 would we structure those. I think that we need to
12 just keep in mind the complexities of it before we
13 land on a policy solution.

14 So, for example, with Quay Valley, they
15 have land that's out in the hot inland valley
16 that's not yet developed. But because of that,
17 the land is fairly cheap and they can do something
18 really beautiful in terms of energy efficiency and
19 renewables, because they've got a little extra
20 money because the land's cheap.

21 They can also look at putting up huge
22 solar farms. So, I think that there's -- which
23 could be of enormous value, particularly if
24 California gets hotter, to have big solar farms
25 out there feeding into the grid during peak

1 periods so we don't have to do more conventional
2 power plants.

3 So, I think that we want to incent the
4 right thing. I think we need to think very
5 carefully about what the right thing is, under
6 what circumstances. Because there may be some of
7 these other new developments that may be good for
8 the state, and we don't want to disincent them at
9 the same time we incent the very smart development
10 that Gary Patton was talking about.

11 So I think that we should look at
12 influencing that. I just want to be careful about
13 not creating a wrong incentive in the process.

14 PRESIDING MEMBER PFANNENSTIEL: I agree.
15 We would like to work with you and the other
16 utilities on trying to define that correctly.

17 MS. ALEXANDER: I think that would be a
18 great thing to do. I also think that we've talked
19 to PG&E about, since we're going to be investing
20 billions in a grid, let's make it a smart grid,
21 you know, a very highly interactive grid that
22 incorporates renewables and interactive plug load
23 and all of those things.

24 PRESIDING MEMBER PFANNENSTIEL: Thank
25 you very much.

1 MS. ALEXANDER: Thank you. Thanks for
2 the opportunity.

3 MR. BARTHOLOMY: Thank you, Beverly. We
4 appreciate you coming up from San Francisco for
5 this.

6 Next we're going to be hearing from San
7 Diego Gas and Electric. Chris Terzich will be
8 coming up talking about the potential role for
9 utilities in CEQA documentation and some of the
10 ideas that he's been going around the state
11 talking about recently. So, welcome, Chris; thank
12 you very much.

13 MR. TERZICH: Thanks, everyone. I'd
14 like to thank the Commission; really appreciate
15 the opportunity to come up here. I really enjoyed
16 my lunch. I walked around the mall, the Capitol
17 Mall there; enjoyed all the trees and everything.
18 So, if you guys didn't do that, you missed out.
19 It was very nice.

20 So what are we talking about right now.
21 We're talking about utilities and CEQA. And
22 essentially California Environmental Quality Act
23 is an integral part of land use planning in the
24 State of California.

25 Right now San Diego Gas and Electric, as

1 well as SoCal Edison and PG&E are involved with a
2 group called CCEEB; that's California Council of
3 Environmental and Economic Balance. And we're
4 proposing a CEQA guidelines amendment.

5 And really what it's going to look at is
6 the potential need for gas and electric facilities
7 that pretty much every development project has
8 within the State of California, and actually
9 everywhere.

10 And you may ask, well, isn't that kind
11 of naturally, you know, taking place anyway when
12 developers look at projects, and when
13 municipalities look at projects. And the answer
14 is many times no.

15 What happens is the initial study
16 checklist, which is the building block of the
17 environmental impact report or the environmental
18 analysis of a project has series of questions that
19 are asked, related to potential impacts to the
20 environment. And essentially the problem is is
21 that right now the guidelines do not ask about gas
22 and electric. There's nothing in there.

23 There used to be something about
24 extending gaslines. But not any more. In the
25 latest guidelines there is nothing asking about

1 what electrical or gas extensions or physical
2 impacts are. So, this is kind of an issue.

3 Really the problem is that CEQA does
4 require the whole of the action be analyzed. In
5 other words you can't piecemeal a project. You
6 can't take little pieces and parts and try to
7 split them off and not deal with them. You need
8 to look at everything that is required to
9 implement and build a project.

10 For gas and electric, particularly the
11 electric, you're going to require subsequent
12 environmental review, either by the PUC, if it
13 triggers certain requirements for like say
14 relocating a transmission line; or let's say it's
15 extending a gasline through a wetland, this sort
16 of development. All of these things will require
17 subsequent CEQA and NEPA processes.

18 This is what happens. You're like,
19 okay, there's no view. You know, there's a great
20 view but there's no lights. And, you know, it's
21 colder than heck because there's no gas.

22 So, when you look at it this way, I
23 mean, it just seems kind of obvious. But without
24 gas and electric you don't have a development
25 really. So it really is integral to the process.

1 And this is kind of what this is kind of
2 illustrating. Without as and electric you really
3 don't have your development, either. So we need
4 to look at the whole thing.

5 So, what's the big deal. Here's some
6 examples. This is Rancho Theoretical, one of my
7 favorite developments. Okay, we have an existing
8 powerline easement; it's vacant land; it's kind of
9 hilly, as you can see, all the squiggly lines are
10 topographic lines.

11 And they're going to propose a single
12 family residential development, something that
13 we're trying not to encourage in this particular
14 land use environment that we're talking about now.

15 But anyway, here it is. And it still
16 happens and we have to deal with it. So we have
17 our existing powerline easement. There's
18 powerlines there happily buzzing along, but not
19 loudly.

20 Okay, so they propose a couple of
21 things. They propose to go underground with the
22 line partially. And then they also propose to
23 realign the easement so that it kind of follows a
24 little bit of a better area; maybe it's not as
25 visually intrusive to the development, whatever it

1 happens to be.

2 Okay, so there you go. So, what happens
3 in this case? Well, this gets proposed and the
4 impact analysis goes, okay, we looked at the
5 development footprint, we did all of the things
6 that we normally do. We looked at the impact to
7 biological resources, from the development
8 footprint we've looked at the roads coming in,
9 we've looked at all of the impacts and associated
10 things that are going on, cultural impacts,
11 historical, paleontology, everything else.

12 They have this plan to relocate our
13 line. What happens is a lot of times they forget
14 to talk about the actual relocation impacts,
15 themselves. That includes what's the impact of
16 removing the existing poles and the related
17 facilities.

18 What about the trenching that's going to
19 need to occur before any undergrounding that
20 happens, outside of the development footprint
21 you'd be really surprised how many times that gets
22 forgotten.

23 Access road. Overhead and underground
24 facilities require a means to maintain them and
25 get there with the maintenance vehicles. That's

1 an impact, too. Many times an environmental
2 impact report will go all the way through and get
3 certified, and nothing is discussed about it. And
4 then we're coming back later and we have to go
5 back to the PUC and get what's called a permit to
6 construct, or have an environmental review done by
7 them potentially. Adding months to the process to
8 the developer. It's not a good thing.

9 Piecemealing. Can't do it, don't do it.

10 Here's another example. This is not
11 Fulla, this is Fulla, right, Spanish. So we got
12 our existing transmission line; we got an existing
13 substation. Of course, we have the wind turbine
14 project, Rancho de Fulla.

15 So, okay, great. Here's what a lot of
16 times the environmental document will look at.
17 Particularly with a wind project, that's why I
18 used it, because most wind projects, I think all
19 wind projects don't go to an agency like the CEC.
20 They'll go to like a county. And counties, many
21 times, aren't really familiar with what's required
22 for these large energy projects.

23 So, they're looking at the project, the
24 impacts of putting up the wind turbines and the
25 generation tieback to the transmission line. They

1 go, you're good to go. So, what's the big deal.
2 You got your way to get back to the transmission
3 line. You got your wind turbines. You've
4 analyzed your impacts. Looked at the visual
5 impacts, everything that you're supposed to do.

6 Well, there's a couple of problems.
7 You're going to need a new substation to ramp the
8 voltage up from whatever the voltage is coming out
9 of the generation tieline to the transmission
10 facility that's existing.

11 You probably are going to have to do
12 substation upgrades. That could have potential
13 environmental impacts, even if it's all within the
14 fence of the substation.

15 Many times there are new facilities like
16 cable pulls and other facilities that have to be
17 put in place outside of the substation. That
18 could have environmental impacts.

19 What else? You may have to beef up that
20 line. The line may have to be reconductored. In
21 other words, increased in capacity to take that
22 extra energy off of that wind project and put it
23 into the grid. And many times reconductors
24 require new poles or what we call inter-set poles
25 or replacement poles because the existing

1 facilities structurally can't handle the higher
2 tension of the larger facilities.

3 So there's a couple of examples for you.
4 There's many more. Those are a couple of the
5 typical ones that you'll see.

6 So this is what we're proposing to amend
7 appendix G to simply add something that seems
8 pretty obvious, at least to us in the utility
9 business. And I won't read the whole thing.
10 Essentially it's saying, hey, remember us when
11 you're looking at your development project in
12 terms of extending infrastructure, either gas or
13 electric; what could be required, you know. Come
14 to us and we can provide that information for you
15 and it can be fully assessed.

16 That's kind of what it would look like,
17 the visualization of it popped right into the CEQA
18 guidelines, which we hope will happen soon.

19 So the benefits are pretty obvious, I
20 think. Fully discloses electric and gas
21 infrastructure impacts. That's what CEQA is all
22 about. Full disclosure of potential impacts.

23 There's a lot of things in CEQA about
24 water and wastewater. This provides equal
25 treatment to gas and electric, which is pretty

1 critical public facility and service. Minimizes
2 piecemealing. Implements, again, CEQA; and it
3 eliminates unnecessary CEQA processes that could
4 occur later on, either through the PUC or through
5 some other agency that requires a permit or some
6 other impact that just wasn't covered or looked
7 at.

8 And speaking of kind of getting in early
9 in the planning effort, SDG&E, just real quickly,
10 has kind of reached out to local agencies to be
11 integrated early on in their CEQA process for
12 general plan updates. Trying to get in on the
13 ground floor.

14 And we've had some successes lately.
15 Includes the city general plan update, City of San
16 Diego, County of San Diego. BLM, for example.
17 What we did is we provided our facility locations,
18 which is actually a general -- which is a general
19 plan update guideline that all municipalities, et
20 cetera, look and include transmission facilities
21 in their general plans.

22 So, we've provided those. We've
23 provided substations. Not a lot of gory detail or
24 anything like that, but just enough to get a sense
25 of where the facilities are.

1 We've also provided them draft land use
2 policies, which look at integrating energy
3 infrastructure, electric, gas, into existing land
4 uses. There's many times when you do beautiful
5 planning and you've done everything you should do.
6 You've made it sustainable. And you've done it
7 transit oriented. For example, the next thing you
8 know there's no room for the new substation that's
9 required. It happens.

10 And so this is a means, in a way, to get
11 all of this thought about upfront and early on in
12 the process. And one of the best ways to do that
13 is the general plan. So that also included these
14 draft land use policies.

15 And also we provided recently, I think
16 it was in March, the IEPR corridor map. We
17 provided that to the CEC. And as soon as that was
18 done, we took that map and sent it off to the
19 County of San Diego for their general plan update,
20 so that they would have it. And we also provided
21 GIS shape files so that they could integrate it
22 into their modeling and land use planning efforts
23 for their general plan update in 2020.

24 And like I say, all of these were
25 included early enough hopefully to be included in

1 their CEQA document for the general plan updates.

2 So, any questions?

3 PRESIDING MEMBER PFANNENSTIEL: No
4 questions. Thank you very much. Very very
5 interesting.

6 MR. BARTHOLOMY: Thank you very much,
7 Chris. We appreciate you coming all the way up
8 from San Diego for this.

9 Our last utility we're going to hear
10 from is Southern California Edison. We have a tag
11 team of Mary Deming and Patricia Arons to tell us
12 about some of their leadership programs they're
13 developing at Southern California Edison.

14 Welcome.

15 MS. ARONS: Thank you. Let me introduce
16 myself first, myself and Mary. I'm Patricia Arons
17 and I'm Manager of Transmission Planning for
18 Southern California Edison. And Mary Deming, Dr.
19 Mary Deming, is Manager of Planning and Strategy
20 in the Environmental Health and Safety Division
21 within Edison.

22 Thank you for inviting us here today to
23 share our views on land use planning and where we
24 would like to see it go. We appreciate the
25 Commission's interest on this activity. And both

1 Mary and I are speaking today partly because we
2 both have a lot to say on the topic. So feel free
3 to cut us off when you feel like you need to.

4 But we've also been having discussions
5 over the years on land use planning and what it
6 means to Edison.

7 We have a lot at stake at Edison on land
8 use planning. And a lot of the future of the
9 success of the company is going to, I believe, be
10 based on our successes on land use planning, what
11 the Commission is able to achieve.

12 (Pause.)

13 MS. ARONS: We're very supportive of the
14 state's energy policy goals. And, in fact, I
15 think a lot of the state's goals in climate change
16 has to do with the procurement of renewable
17 energy. And that is a big part of my job. Today
18 I'm going to give you a little bit of background
19 on some of the activities that we're currently
20 involved with, both the PUC and the CEC, as well
21 as PG&E and some of the other municipal utilities
22 within the state.

23 And this is one renewable planning. Our
24 successes in land use planning are crucial for
25 Edison because we have an obligation to serve

1 customer load. And our ability to build energy
2 infrastructure to fulfill that obligation is
3 critical.

4 And we have so much difficulty doing
5 that. It's a very difficult thing to go out and
6 permit any facilities today, whether it's
7 distribution or transmission. It just seems like
8 one hurdle after the other.

9 And Mary and I have been talking over
10 the years about well, how can we improve this
11 process. And it really comes down to the fact
12 that the more visionary we are able to be in
13 looking out into the future, the better our plans
14 are, the more enduring.

15 And if you think about the electric grid
16 as being something that's 100 years old, there are
17 generations of electrical engineers that have been
18 part of developing that. And some of our most
19 important facilities, Hoover Dam, for example, was
20 conceptualized 80 years ago and built 70 years
21 ago.

22 So there's a lot of visioning that goes
23 on in developing the electric grid. And part of
24 the visioning process that we think that we need
25 to begin to implement going into the future

1 relates to land use planning, working with cities
2 and counties to provide for how are we going to
3 serve the growing population, the expanding urban
4 sprawl, the redevelopment and growing load.

5 And so part of the dialogue that we need
6 to start happening is working with cities and
7 counties in terms of where are we going to build
8 facilities, whether it's transmission to
9 interconnect and deliver renewable generation; or
10 in the simple case of a distribution substation.

11 A small town in a remote part of
12 California is growing enormously and we have to
13 figure out where we're going to put that
14 substation.

15 Well, those are land use planning
16 decisions that the earlier that Edison is engaged
17 in that process with that city or that county, the
18 better off the plans are and the less conflict
19 that we get into.

20 So, a lot of what we see happening in
21 the directions that we want to take land use
22 planning really has to do with a notion that we
23 think of, I don't think it's a term that I've
24 heard yet today, is cooperative planning.

25 But we have a lot of things that we're

1 doing today, to get back to the slide, on the
2 multiple activities. We're doing our part on
3 greenhouse gas reduction; we're doing a lot on
4 renewable generation development in terms of the
5 contracting. But, as well as the development of
6 transmission resources to interconnect.

7 Increases in energy efficiency;
8 increases in demand response programs; distributed
9 generation and land use planning on Senate Bill
10 1059.

11 By the way, I'm not going to be able to
12 join you on Friday for your hearings coming up on
13 corridor planning and the rules associated with
14 that, but we are very supportive of that program.

15 And we thank you again for beginning that as
16 an activity.

17 We think the state's energy policies are
18 moving us toward a reliable and sustainable energy
19 future. And to the extent that as a utility we
20 have a lot to feed into that whole process of
21 reliability and sustainability, meeting the needs
22 of present without compromising the needs and
23 opportunities of future generation are really what
24 we think that is about.

25 Before I turn the podium over to Mary I

1 do want to make mention of this renewable
2 transmission planning activity that Edison is
3 working on with the PUC and the CEC, as well as
4 other utilities in the state.

5 We had filed earlier this year, I
6 believe, it was an advice letter filing to the
7 Commission, requesting \$6 million in funding to go
8 out and develop new concepts for transmission to
9 interconnect renewable resources. And the \$6
10 million funding was really about going out and
11 once you conceptualize a transmission project,
12 going out and trying to find the fatal flaws and
13 identify the feasibility of that type of project.
14 Somewhat akin to how we had developed the \$2
15 billion Tehachapi project, if you're familiar with
16 that.

17 And we are looking at a number of
18 different renewable potential resource areas
19 around the State of California, as well as around
20 the borders of the state outside.

21 And we conclude that one of the first
22 things that we need to do is to identify where the
23 renewable potential is. And then the second step,
24 naturally, would be to conceptualize transmission
25 projects.

1 I'm promoting the notion that perhaps
2 the second thing that we ought to do is to take to
3 the cities and counties that may be affected by
4 these programs, the notion that we need to develop
5 transmission to be able to deliver them to load
6 customers around the state.

7 And that we need to engage as very early
8 in the dialogue how we do that. Because building
9 transmission is one of the single most difficult
10 things that utilities do. And you can get tripped
11 up at any point in the process as you go about
12 trying to conceptualize, develop, do engineering
13 studies, do environmental studies, take it through
14 permitting. And then all of a sudden you're
15 denied permit because someone has a completely
16 different view of that project than you do.

17 And so I think that by engaging the
18 public, cities and counties, and planners around
19 the issue, where do we site these things, and how
20 do we conceptualize and achieve the states goals
21 on air quality and procurement of renewables.
22 That's really, in my mind, the only way that this
23 program is going to be successful.

24 And so I see land use planning
25 activities at the renewable level a critical

1 thing. But also just broader energy
2 infrastructure development. And being successful
3 to be able to identify conflicts, identify
4 compatibilities, and then conceptualize your
5 facility planning to meet with what those long-
6 term plans are for the city and county.

7 So, land use planning is really a
8 foundational issue for Edison.

9 So I'm going to turn the podium over to
10 Mary.

11 DR. DEMING: Thank you, Pat. Pat
12 referred to the term legacy which is the
13 foundation of what we're suggesting here, that we
14 fuel the growth that has land use consequences
15 here through our electricity. So it's an integral
16 part of the preserving the environment, fueling
17 the economy, and the land use implications that
18 follow.

19 The second sort of dependency here with
20 land use is our infrastructure, because we require
21 land at a time when there's increasing competition
22 for land for various resources and interests.
23 Land is to be preserved; land is to be used for
24 economic values; land serves economic values and
25 environmental values. And we come along and need

1 a little bit of land for a transmission substation
2 or generation. So, our infrastructure is another
3 key dependency in the land use issue.

4 That, we're trying all along, to support
5 population, transportation, business technologies
6 and changes. So the notion of cooperation is, we
7 think, the central way in which we are going to be
8 able to find the land we need, as well as to serve
9 the customers that we're obligated to serve.

10 The legacy we think will be served or
11 will be generated by more effective cooperation,
12 knowing that the facilities that we build today
13 are the ones that are going to be on the ground
14 100 years from now.

15 So our projects, as Pat said, do face
16 considerable opposition. But we're looking
17 earlier and earlier in our planning process to
18 engage with communities.

19 We think that the implementation of
20 state policies and initiatives should involve
21 local communities and regional entities. Clearly
22 local governments develop a vision; they have
23 plans for future growth. They have obligations
24 and the authority for land use decisionmaking.

25 We're increasingly trying to understand

1 those obligations and how we can fit into that
2 planning arena, as well as our own.

3 Regional entities are analogous to our
4 regional perspectives, as well. These regional
5 entities can be SCAG, SANDAG, as we've heard, but
6 also League of Cities, CSAC and professional
7 organizations in the planning field. So the
8 regional perspective is really critical.

9 I'd like to move up one more step to the
10 state level, as well, which is why we're here
11 today, because we do think that there's a key role
12 for the Energy Commission in the land use arena.
13 Good land use decisionmaking will have its roots
14 not only in what utilities do, but also what
15 regional entities and local governments do.

16 We have been working, Pat and I, and a
17 larger team that includes our corporate real
18 estate department, our public affairs department,
19 our transmission, as well as our subtransmission
20 planning organizations in thinking about at least
21 four different ways in which we can engage with
22 communities.

23 One is in the EIR review of developers'
24 programs, as well as state government programs and
25 local government programs in which an

1 environmental document is prepared; as well as
2 general plans. Where growth is spelled out for
3 the future of communities.

4 We're looking at those plans not only
5 for what they tell us about where we should be
6 siting our facilities, but also for the point of
7 view our own long-range planning as to where our
8 facilities might be incorporated into those plans.

9 Load forecasting is an area that we are
10 just beginning to look at, that we would like to
11 be as cooperative with communities as possible,
12 taking advantage of their local knowledge about
13 development and growth, incorporating that into
14 our load forecasts so that the facilities we plan
15 are more closely matched to community plans.

16 We realize that if we are going to
17 communicate with these communities and regional
18 and state entities, we need to describe and
19 communicate our planning processes. They do
20 differ from community and county planning
21 processes.

22 And we found that in our exercise with
23 San Bernardino County, cooperating with them in
24 our general plan update -- their general plan
25 update, that we had to begin at the very beginning

1 with the ways in which we plan and update our
2 plans every single year.

3 We also expect that as we get better at
4 this that we will be upgrading and informing every
5 planning agency in our service territory with
6 regular information exchanges. Because our plans
7 change more frequently than do general plans, it's
8 incumbent on us to work collectively with these
9 planning organizations in our service territory,
10 make sure that we're current.

11 We think that the most important
12 currency, if you will, that will allow for these
13 exchanges is communication. And we think that the
14 CEC is uniquely positioned to exchange
15 communications between land use planning entities
16 and utility providers. And these forums are a
17 good example of that kind of communication.

18 Educational tools for us and for local
19 governments on state policies and how to
20 incorporate them into general plans, the CEC could
21 also facilitate communication between local
22 governments and the utilities to develop some
23 cooperative planning approaches.

24 The system that we have in mind will
25 help promote sustainability by incorporating known

1 information about the future into both of our
2 plans. This allows for open discussion of energy
3 efficiency, demand response, distributed
4 generation along with the kind of infrastructure
5 that we need to site.

6 We also hope by pushing the planning
7 process further and further upstream from the
8 project stage of our planning, that we have a
9 chance to share a foundation for why our projects
10 are needed. Why certain projects are needed to
11 serve certain kinds of needs.

12 It's at the planning stage, I think,
13 that we have less controversy and more opportunity
14 to discuss mutual goals. Again, the farther we
15 back upstream from projects, the larger the
16 geography of interest, the greater the resources
17 that we can consider to solve our electrical needs
18 and the greater the potential role for reducing
19 conflict in the future.

20 Our recommendations then are, although
21 there are two bullets here, I see three key points
22 I'd like to make. One is that the CEC develop a
23 communications platform that goes beyond this
24 particular IEPR discussion.

25 That we should also pursue the corridor

1 planning process in a collaborative way, so that
2 the communities in which these corridors are
3 located will also be partners.

4 And that the PIER program be used to
5 fund research that will help our understanding
6 about growth, urban form and electric
7 infrastructure needs.

8 Thank you.

9 PRESIDING MEMBER PFANNENSTIEL: Thanks
10 very much, Mary. Thank both of you from Edison.
11 I have no questions. Questions?

12 Thank you for being here and for the
13 good work that Edison's doing in this area.

14 MR. BARTHOLOMY: Pat and Mary, thank you
15 very much for coming up. That was a fascinating
16 conversation.

17 We are going to be moving into the last
18 panel of the day on research and development. And
19 we have three different speakers coming up for
20 that. You've heard it talked about time and again
21 during this session about the need for the state
22 to be providing more guidance, whether it's for
23 CEQA guidance or project-specific guidance, or
24 improved modeling opportunities for regional
25 transportation planning. You've heard it again

1 and again today.

2 And we're going to have some more of
3 that conversation here. I'm very excited. Our
4 very own Martha Krebs, from the PIER program, is
5 going to be talking about a new research framework
6 they're developing within the PIER program.

7 We're going to be hearing from one of
8 the practitioners out in the field, Gordon Garry
9 from SACOG, talking about modeling for
10 transportation needs.

11 And then we'll be hearing from Doug
12 Newman from National Energy Center for Sustainable
13 Communities, talking about integrated energy
14 planning for sustainable communities and his
15 experience with the Chula Vista project.

16 So I think we have a great conversation
17 coming up and I'd like to welcome Martha up to the
18 podium.

19 So earlier we gave Dr. Reid Ewing, we
20 really thanked him because he traveled such a long
21 way to get here. And he got the award for
22 traveling the farthest. And we're going to be
23 giving a similar award to Martha because she had
24 the lowest greenhouse gas footprint of her travel
25 to get here, since she is right here in the

1 building.

2 So, please help me welcoming Martha
3 Krebs, our Deputy Director of Energy Research and
4 Development in talking about the energy and
5 sustainable community research.

6 DR. KREBS: I'm always glad to accept
7 any award.

8 (Laughter.)

9 DR. KREBS: But I have worked --

10 PRESIDING MEMBER PFANNENSTIEL: I think
11 that's as good as it gets in here, Martha.

12 (Laughter.)

13 DR. KREBS: I have worked harder for
14 some others, though.

15 Well, thank you. It's good to be here
16 this afternoon, and to talk about some of the
17 issues that PIER is thinking about with respect to
18 sustainable communities and land use planning.

19 The PIER program was reauthorized last
20 year by SB-1250. And in that reauthorization the
21 program was given responsibility to develop and
22 help bring to market new technologies for
23 transportation, end use, water and resource
24 efficiency, clean generation, renewable resources
25 and grid interconnection.

1 The intersection of these mandates leads
2 naturally to tools that support the development of
3 sustainable communities.

4 California has a long history of
5 supporting clean energy. From regularly advancing
6 efficiency programs to shifting towards natural
7 gas in our electricity generation system.

8 The effect of energy efficiency policy
9 is shown dramatically in the constant per capita
10 electricity use in California versus the United
11 States over the last 30 years, represented on the
12 illustration on the right side of this chart.

13 But California's work is just beginning.
14 On the left side you see how we compare to the
15 rest of the world, as well as to the rest of the
16 United States in terms of our carbon dioxide
17 footprint. And to meet the requirements of AB-32,
18 California must reduce CO2 emissions to 1990
19 levels by 2020. And this means that California
20 will have to reduce their CO2 emissions another 25
21 percent from current levels.

22 And that means that our per capita use
23 has to go down on the right-hand chart. It means
24 that our dot has to move downward and to the left
25 on the CO2 emissions chart.

1 And so while national and state policies
2 and actions are needed, profound actions are also
3 needed at the local level.

4 And so land use decisions in existing
5 and new communities will have big consequences.
6 And we are already experiencing difficulties. In
7 this chart it simply shows that across the country
8 traffic congestion in major urban areas with
9 populations of more than 1 million has increased
10 remarkably in the last 25 years. And the
11 California major cities are well represented on
12 this chart by the pairs of orange and bright pink
13 bars for Los Angeles, San Francisco, Riverside,
14 San Jose, San Diego.

15 It's also the case that longer commutes
16 in existing urban counties, in the hotter inland
17 communities that have experienced growth recently
18 are strongly correlated with ozone nonattainment
19 areas. And once again, showing the link between
20 transportation, energy and air quality.

21 There are other issues, as well,
22 however, beyond transportation. There are water
23 availability shortfalls in areas where development
24 exists and is expected, whether it's in the south
25 San Joaquin Valley, the South Coast, Sacramento

1 Valley, the desert area, the southern desert
2 areas, or in San Francisco Bay.

3 Urbanization entails generally paving
4 over large quantities of land, increasing
5 stormwater runoff and reducing the amount of water
6 that recharges the underground aquifers, reducing
7 the availability of groundwater, a very important
8 source of water for many local communities around
9 the state.

10 For southern California groundwater is a
11 less intensive source than importing water from
12 northern California and the Colorado River. And
13 urban water is expected -- water use is expected
14 to increase significantly in the coming years.

15 Yet another consideration is the impact
16 of urbanization and development on wildlife and
17 habitat. California, as designated by
18 Conservation International, is one of the world's
19 33 biodiversity hot spots. California is one of
20 four ecologically degraded states in the country.
21 And only 25 percent of original vegetation remains
22 in pristine condition.

23 That we point often, or at least I do,
24 in conversations that I have, to our energy, our
25 per capita energy efficiency achievements with

1 pride. But there are plenty of things to worry
2 about.

3 In 1970 the average home was 1500 square
4 feet, and plug load was about a little over 600
5 kilowatt hours a year. Today, or in 2005, the
6 average home was 2400 square feet and the plug
7 load was about 1000 kilowatt hours per year. We
8 have to do better. And that means new
9 technologies for more efficient buildings; better
10 integration of renewables with efficiency at the
11 building and community scales.

12 We need to anticipate the use of
13 electric or fuel cell vehicles in the building
14 environment. We need to consider grid integration
15 and other demand response issues.

16 As we look toward sustainable
17 communities and land use planning, transportation
18 remains a major driver, but the systems
19 integration challenges include building and
20 community design for efficiency and renewables,
21 water and waste management, distributed
22 generation, as well as transportation.

23 Assisting regional and local planners
24 with this whole package is what will be necessary
25 for an effective climate change response and the

1 achievement of sustainable communities.

2 This is beginning of the way we're
3 approaching, in the PIER program, an integrated
4 research program that we would look to for
5 informing energy policy. And the questions that
6 are represented here are what we think of as
7 exploratory.

8 And I was struck by Beverly Alexander's
9 comments and to some extent Pat Arons', as well,
10 that there is an issue of what do we mean by
11 sustainability. As we know it, sustainability was
12 defined in 1987 in the context of global
13 environment and international development. But we
14 need to bring it home to California, we need to
15 bring it into the energy picture, we need to bring
16 it into our local communities.

17 And one of the first things I think we
18 need to agree upon in an exchange with the
19 stakeholders and performers in this area is what
20 do we mean, what do we want it to mean. And how
21 can we develop principles for urban design and
22 sustainability that will give us good
23 infrastructure development and public services.

24 And how can we minimize energy requirements
25 as a result of our land use decisions.

1 PIER has been involved in this area for
2 awhile, but not in an integrated fashion. Our
3 buildings program has been thoughtful in pursuing
4 research about green building design with
5 developers, with architects, with our state --
6 with colleagues in our state agencies for some
7 time.

8 We have, in the zero energy new homes,
9 in some of our renewable generation programs, as
10 well as in the efficiency and environmental
11 program, been looking at community scale
12 strategies. With the recent mandate for
13 transportation research, we've begun to explore
14 the inclusion of the transportation issues. And
15 in our energy systems program, the issue of smart
16 grid and its impact, both at the community and the
17 regional level, and the utility-scale level has
18 been a topic of research for some time.

19 In this slide I've used this in a number
20 of contexts, and I was trying to capture the
21 broader systems issues that the Public Interest
22 Energy Research program has to deal with, from the
23 complexity of the electricity system to looking
24 beyond climate -- the climate-driven impacts, to
25 land use planning.

1 And then so that's what's on the left-
2 hand side. And what's on the right side are
3 research areas that might provide useful tools for
4 looking at these systems issues.

5 But one of the difficult aspects about
6 systems is that they are usually only partly about
7 science and technology. Especially when energy is
8 involved. The technology is almost always
9 intimately connected with the user, even if the
10 user is an engineer at a utility or at the
11 California ISO. So, human behavior, individual
12 and institution, is always an issue.

13 In the case of land use planning this is
14 especially the case. So in addition to developing
15 tools that characterize and can examine different
16 quantitative relationships that must be explored
17 in a land use plan, we also need to understand
18 what is realistic human and institutional
19 behavior. And this is an area that, in PIER,
20 we've begun to explore in conjunction with some
21 efforts on the part of the California Institute
22 for Energy and the Environment.

23 So our plan, and this workshop is a
24 critical element of our plan, is to determine how
25 we will allocate further and identify research

1 topics and projects for \$2 million that was
2 identified by the research committee at the
3 Commission for land use planning and sustainable
4 communities.

5 And over the next year essentially we
6 will develop a research roadmap for this area.
7 And in the meantime we will identify early
8 activities that we may find ourselves investing in
9 with partners here in California.

10 There are implementation challenges.
11 Metrics in this area are difficult to define.
12 Driven as we are by our legislative mandates, the
13 SB-1250 focuses on technology. Clearly there
14 are -- the technology for some of the tools in
15 land use planning is highly embedded. What we
16 need are design tools. There's a lot of
17 computerization that can be engaged in, but the
18 development of the computer programs, themselves,
19 are probably not as important as understanding how
20 these tools will be used, and improving their user
21 friendliness.

22 And once you accomplish the research,
23 you have results, finding ways to have them really
24 useful and effective is a challenge in this area
25 because of both the many private and public

1 agencies that are involved.

2 But, the problem is important and we are
3 moving forward. We have put together a planning
4 team that represents participants from our systems
5 office. Laurie TenHope from environment program,
6 which is Kelly Birkinshaw and Gina Barkalow. And
7 transportation Phil Meismer; Cherie Davis from
8 buildings. And Jameel Asalam, who I think is also
9 from the systems office.

10 I'd be happy to answer questions.

11 PRESIDING MEMBER PFANNENSTIEL: Thank
12 you, Martha. It's interesting that you raise the
13 question of metrics. That's been one that I've
14 been struggling with also.

15 The one metric that we hear, and we
16 heard it many times today, was VMT. And that
17 seems to be the one sort of constant that we can
18 talk about certainly in a climate perspective.

19 What else are you thinking about? What
20 are some of the other metrics that you're hoping
21 to be able to use?

22 DR. KREBS: Well, I think that part of
23 where we are looking at, as I said earlier, is
24 this is a systems problem, then it's -- this is a
25 area where we may find ourselves paying as much

1 attention to integrated community design in terms
2 of -- in the circumstance where a developer wants
3 to use both efficiency and renewables, part of the
4 planning tools would include siting, you know,
5 siting mechanisms. So that you properly site
6 different homes in different orientations with
7 respect to insulation.

8 And we think that -- so we, at least at
9 this point, I would say, transportation is an
10 important metric. But we also believe that there
11 would be other metrics associated with integrating
12 efficiency and renewable use and distributed
13 generation, or grid interconnection with, you
14 know, as features of these tools in addition to
15 just vehicle miles saved.

16 PRESIDING MEMBER PFANNENSTIEL: Thanks.
17 Thanks very much.

18 MR. BARTHOLOMY: Thank you, Martha. I'd
19 like to welcome up Gordon Garry; he's the Manager
20 for Research and Modeling at the Sacramento Area
21 Council of Governments. We wanted to make sure
22 that we had a practitioner on this panel. And
23 Gordon fulfills that role.

24 You saw some of the excellent work that
25 he has done in Mike McKeever's presentation

1 earlier. He's going to be touching on that a bit,
2 but then also talking about what some of the
3 modeling needs are out in the field.

4 So, thank you very much for coming,
5 Gordon.

6 MR. GARRY: Thank you for the
7 invitation. As I was looking over these slides
8 this morning it occurred to me that the title -- I
9 might use a different title for it, and if I -- if
10 I had time to redo it, you know, I would have
11 renamed this urban system modeling needs.

12 The both, you know, the research and the
13 tools and the data required really all kind of
14 pointing toward the thing that has been talked
15 about for years and years and years which is there
16 are complex systems and, while in the past we've
17 tried to get to a piece, one time at one place or
18 another, now we have the capability of actually
19 making those connections in the analysis, in the
20 models, and in the data.

21 And so I want to talk about what we've
22 been doing mostly in the Sacramento region, but
23 also in kind of in the broader context on both the
24 land use planning side and the transportation
25 planning side.

1 I won't, you know, dwell on this too
2 much. I think Mike covered this pretty well this
3 morning in his, about who SACOG is and what we do.
4 And we're a fast-growing region.

5 What we have used in our blueprint
6 planning and in our transportation planning is to
7 build a set of tools to help make decisions. The
8 point has always been to make better decisions.
9 And so what I'm going to talk about is these three
10 classes I place as being the centerpoint as being
11 it's the framework from which a land use planning
12 process has happened. And it's the mechanism for
13 which we can gather a lot of information, a lot of
14 different kinds of data, and put them onto a
15 consistent analytical framework and show the
16 interactions and interrelationships between them.

17 And then we're also building economic
18 land use models and then we have our
19 transportation demand models, as well.

20 As Mike mentioned this morning, the
21 blueprint vision was a 50-year vision for how this
22 region's going to grow and it's resulted in a set
23 of smart growth policy decisions that are now
24 going back to the cities and counties for their
25 actual implementation.

1 And then we at SACOG have turned now to
2 the transportation side of that. We're at the
3 final stages of our metropolitan transportation
4 plan, goes out to 2035. What will be the
5 transportation investment strategy for the region
6 to match with that blueprint vision and
7 implementation.

8 And our budget for the entire region,
9 transportation budget, is now at about \$42 billion
10 out from now to 2035. We're getting to the end of
11 that process now. We think our board of directors
12 is probably going to adopt that in September.

13 And so in order to get to all that good
14 decisionmaking that our board is making, we have
15 built a set of models, a suite of models, at SACOG
16 using the best that we can find of both local
17 data, local knowledge, and then what's available
18 nationally, as well.

19 I-PLACE3S is really the -- as I said,
20 the centerpiece of that. Every time I come here I
21 like to thank the Energy Commission for their
22 early interest in PLACE3S and then in the
23 subsequent I-PLACE3S, the web-based version of
24 that model, to get it up and running and enable us
25 to do the great work we've done, both as an

1 analytical tool, but also as the mechanism to go
2 out to all the public workshops, all the public
3 outreach, public education programs.

4 Because that web-based tool makes it
5 possible to show the relationships, the data goes
6 behind it, and to engage the public and our
7 decisionmaker that a good dialogue to be able to
8 come to good public policy -- public policy
9 decisions.

10 The second piece is our regional travel
11 demand model. And we've now moved to a next
12 generation of travel demand models, away from the
13 paradigm that had been used in this region and
14 throughout the country for the past 40 or 50
15 years.

16 So we're moving to an activity-based
17 model which means you're looking at decisionmaking
18 at the household level, not at some group of
19 households grouped together and aggregated and all
20 their individualities mashed together.

21 And then we are also working on economic
22 land use forecasting model. The difference
23 between it and I-PLACE3S is PLACE3S is a planning
24 tool. What do people want to have and what are
25 some feedbacks and mechanisms to get to good

1 planning decisions.

2 PECAS is a format of this economic
3 forecasting model that says here's a picture of
4 the region's or the state's economy. Here's a
5 representation of all the public policy tools,
6 both investment policies as well as regulatory
7 policies, related to land use.

8 How then do all those things interact as
9 you move forward and you grow a region, or you
10 grow a state, how will that fit the -- how will
11 that economy grow in space and in time. And I'll
12 talk about each of those a little bit more.

13 So why do we do all this. Like I said,
14 you know, we want to get to as good a set of
15 decisions as we can get to for our policymakers.
16 Give them the best choices possible. So we really
17 view models as the interface between research and
18 public policy issues. That's the place where the
19 research comes into practice.

20 And as I mentioned right at the
21 beginning, the models are now becoming more
22 effective and more comprehensive. Which is really
23 a good thing because the research is also pointing
24 to, you know, the things are interrelated. And
25 what are the interrelated causes and consequences

1 are becoming more apparent. And also at the other
2 end of the scale of policy issues are also often
3 very interrelated and complex.

4 And so you want to have tools and models
5 that will be able to bring those two sets of
6 complex systems together. Both the decisionmaking
7 system as well as the research and the problem
8 that you're trying to address.

9 PLACE3S has been, you know, updated and
10 improved. And we continue to improve that. We're
11 not the only users. San Diego and San Luis Obispo
12 areas are also have been users of it. Some of our
13 cities and counties are also users of it. We're
14 trying to build a user community because the
15 modular framework allows new additions and new
16 enhancements to those existing modules to be added
17 and improved over time, so it becomes a better
18 source for and resource for more people.

19 And the more users you have, the more
20 input you have. And given its transparent
21 framework, we can go in and look at, agree with or
22 disagree with, what goes on inside that model.
23 Change it easily. So you can have a good dialogue
24 at the research end, as well as actual policy
25 applications.

1 Currently, what we have used mostly is
2 the land development modules. We -- return on
3 investment calculation that says, okay, if people
4 want to have a certain growth pattern will
5 developers actually show up and invest their
6 money.

7 And then the transportation modules.
8 And there are some other modules that are in
9 development. I think beta's probably trying to --
10 maybe we're not quite all the way to the beta
11 stage on all these modules, but we're in
12 development. The Energy Commission is sponsoring
13 a module on energy use. We have some things we're
14 working on at SACOG with some other partners on
15 infrastructure costs, fiscal analysis and water
16 demand.

17 And then looking toward the future,
18 we're looking at what's called, where as we did
19 blueprint, which is a kind of urban uses, we're
20 looking at greenprint, agricultural and open
21 space.

22 And another thing that isn't on here
23 that we're just starting discussion on a couple of
24 additional modules with some researchers up in the
25 Seattle area on urban form and physical activity;

1 and on urban form and climate change.

2 Particularly vehicle climate change. It's the
3 emissions; it's travel to emissions to climate
4 change.

5 And those discussions we're just now
6 getting started, but like I said, PLACE3S is a
7 nice transparent framework so you can get to that
8 sort of information and add those modules
9 relatively easily.

10 Turning to the travel demand model,
11 we've moved from what was a fairly aggregate
12 analysis to a very disaggregate, where the unit of
13 analysis is the household.

14 And given that, you know, the travel
15 decisions are a very complex set of
16 characteristics related to the household, related
17 to their work or nonwork status, as well as their
18 location, as well as their transportation system
19 that they have available to them. All those
20 things are very complex.

21 This disaggregate framework lets those
22 demographic characteristics, the geographic
23 characteristics, the spatial characteristics all
24 be much more finely analyzed and let all those
25 interactions work themselves through.

1 And then you can, you know, aggregate
2 back to whatever sort of geography, if you want to
3 look at the whole county, or you want to look at
4 just one jurisdiction within that county. That's
5 possible to do with these new models.

6 Just as an example, if you look at
7 here's sort of a representation of a four-person
8 household. The household is sort of shown there
9 in the upper center of that graphic; has four
10 people in it. But they have a lot of trips that
11 they have to make. They have a lot of activities
12 they need to take care of every day. Going to
13 school, going shopping, going to the office, you
14 know, who travels with who.

15 All those, you know, activities are now
16 can be represented discretely in these new travel
17 models, whereas in the past models there's a lot
18 of averaging and aggregations and you lost a lot
19 of the texture in those models. But now we're
20 actually able to represent that level of
21 complexity and how that interacts with everybody
22 else in the region. And how does the congestion
23 change that travel pattern over time, as well as
24 other things change for that household over time.

25 Children get older; they leave the

1 house. Households change their characteristics in
2 a variety of ways over time. We now have a
3 mechanism for doing that.

4 So households have a whole list of
5 activities that you see here that they all have to
6 take account of every day. And from that, travel
7 is derived.

8 As you then, you know, move, here's some
9 of the sort of the demographics or analysis, you
10 know, strengths of these new models rather than
11 limitations you had to work around.

12 On time of day, with this new model
13 you're representing travel by when do you have to
14 leave and when do you have to arrive. So you can
15 get at a much better representation of things like
16 parking policies and tolls when they're by time of
17 day. It's just how often those kind of pricing
18 mechanisms are being evaluated. So you have a
19 mechanism for doing that.

20 But given all that, I mean these travel
21 models still do need some additional work.
22 Whereas we've done a lot of work on the household
23 side, there's still more to do on the commercial
24 vehicle side.

25 And one particularly sort of not a large

1 gap, but a missing piece of it, particularly
2 related to the Energy Commission, is, you know, in
3 these models now you have a model that says how
4 many vehicles will that household own.

5 What we don't have is what kind of
6 vehicles might they own, and how do their
7 demographic, their location, their income
8 characteristics affect how they choose what type
9 of vehicle they own over time.

10 So that's one of the things that's on
11 our research list, is to add that piece to this
12 new activity-based model. Because now we have a
13 framework for actually tying those household
14 characteristics to the type of vehicles that they
15 own. And then consequently give you a much better
16 analysis on what's the energy consumed by that
17 household. And their vehicles, what sort of
18 policies might get at more efficient types of
19 vehicles for the same amount of travel.

20 The last one I want to mention is this
21 economic land use model. What it really is is
22 it's an economic model that has a land use
23 component to it, and ties in with the
24 transportation system.

25 And there are, in addition to the work

1 we're doing at SACOG, San Diego's also in the
2 development stage; and then Caltrans is also
3 looking at a statewide model. And your agency's
4 partnership and participation, I think, would be
5 certainly welcome in that development stage.
6 They're just now getting started and doing the
7 first sort of proof of concept versions of that.

8 And that's been going on for about a
9 year now and will continue now for a bit longer as
10 they move stagewise into a more comprehensive and
11 a broader set of models. But Caltrans is doing a
12 good job and leading that effort; they've got some
13 very good researchers.

14 So that's my little overview of models
15 and where, you know, the progress that we've made
16 so far. And there's still some things that we
17 continue to want and need to do to improve them.

18 PRESIDING MEMBER PFANNENSTIEL: Thank
19 you very much for sharing that. It's really
20 gratifying to see so much of this actually going
21 on, using PLACE3S and then others. We do want to
22 continue to work with you. I think that our work
23 is only valuable to the extent it's actually used.
24 So, I'm glad to hear that it is being used.

25 So, thank you for being here.

1 MR. GARRY: Thank you.

2 MR. BARTHOLOMY: Thank you very much,
3 Gordon. Our last speaker for the day is Doug
4 Newman, the Director for the National Energy
5 Center for Sustainable Communities. And he is
6 phoning in. And is he up now?

7 Doug, can you hear us?

8 MR. NEWMAN: Yes, I am with you.

9 MR. BARTHOLOMY: Fantastic. I am going
10 to be switching over to your presentation, and I
11 am your servant for the next 20 minutes.

12 MR. NEWMAN: Well, I very much
13 appreciate that, Panama. And I'd like to thank
14 the Commission for this opportunity to present
15 some of the challenges and opportunities to
16 integrated energy planning at the local level.

17 You've got the title slide up there I
18 assume. And what I'll be doing here is walking
19 through some of these challenges and
20 opportunities. And then turning to a description
21 of the USDOE/California Energy Commission co-
22 funded project that will begin to address some of
23 these. Of course, a lot of the other research
24 projects that both are pursuing.

25 I'll then conclude this say 15-minute or

1 so presentation with some recommendations for
2 future areas for research that would advance our
3 mutual interest in building more energy and
4 resource efficient communities across California.

5 So with that, Panama, if I can have the
6 next slide, please.

7 Here I'll begin by stating the obvious
8 perhaps. Energy-related air emissions are clearly
9 driving potentially catastrophic changes in our
10 climate. And urban energy consumption is
11 responsible for a majority of the --

12 The chart you're looking at was actually
13 produced by Dr. Rodrigue at Hofstra University
14 where he compares per capital transportation
15 energy consumption in some of the world's largest
16 cities to population density.

17 And the chart here clearly indicates
18 that low density sprawling patterns of urban
19 development in the United States results in our
20 having really the highest per capita
21 transportation energy consumption in the world.

22 Moving beyond transportation energy
23 consumption, this very same pattern of development
24 precludes use of many key advanced energy
25 technologies and systems that could substantially

1 reduce energy use in greenhouse gas emissions in
2 the United States. And the contribution globally.

3 Next slide, please. Unfortunately most
4 U.S. cities, and in particular those in
5 California, have not been planned in a manner that
6 reflects a concern for energy efficiency or
7 conservation. There are many historical and
8 public policy reasons for this over the years, of
9 course.

10 Historically, few general plans at the
11 local level deal with energy, and utilities aren't
12 involved in the process, although the appendix F
13 of CEQA does now actually require consideration of
14 energy conservation as part of the EIR process.

15 Developers today, at least from our
16 interactions with them, Chula Vista, San Diego
17 county regions tend to be very very concerned with
18 how they're going to go about meeting the new
19 Title 2405 standard, while at the same time
20 maintaining the profit margins for their product.

21 Some also, in fact the very large ones,
22 also seem to be quite concerned about the prospect
23 of merging the energy planning mandates,
24 particularly because not only they, but also the
25 real estate financiers, tend to be very unfamiliar

1 with energy efficiency and renewable energy
2 technologies and systems.

3 And, you know, given that there are
4 relatively few energy efficient, that is community
5 scale energy efficient developed models out there
6 to point to, and because there's been relatively
7 little research done that shows them how best to
8 try to achieve that, they, as a group, are really
9 pretty reluctant to move in this new direction.

10 It's been our experience that this
11 industry is relatively risk averse and for fairly
12 decent reasons. The profit margins are such that
13 that sort of position is certainly the safe one to
14 take. So they've been reluctant to go in new
15 directions.

16 Next slide, please. Fortunately there
17 are some real opportunities though that are out
18 there to capitalize upon. And in particular, the
19 private development community towards more energy
20 and -- energy development.

21 The first one is the next 25 years we
22 have an opportunity to literally redesign and
23 build the new and to rebuild more than half of all
24 the structures that will ultimately exist in this
25 country by the year 2030, 2035.

1 Second, the private development industry
2 has now fully embraced the green building movement
3 as the U.S. Green Building Council's lead standard
4 has now become the standard to build to.

5 Moving beyond green buildings, there's
6 now, particularly among the larger leading
7 builders and developers a growing interest in the
8 new LEED standard for development. It's known as
9 the LEED-ND. That will require developers to
10 adopt more energy resource efficient designs for
11 whole subdivisions.

12 There's a growing concern among the
13 development community, and this would really, you
14 know, I've characterized this as being more the
15 leading edge developers for the potential
16 emergence of carbon regulation down the road. And
17 if a strategic business interest is getting out in
18 front of them.

19 Finally, there's a tremendous
20 opportunity for collaborative research in
21 demonstration projects among some of the leading
22 state energy research organizations like your
23 Commission and NYSERTA, the leading utilities and
24 energy companies of the U.S., and abroad, that
25 have begun to take a serious look at more

1 sustainable urban energy systems.

2 In fact, we're right now working with bp
3 and their research program at Imperial College,
4 London, and their sister program at Chengwa
5 (phonetic) University in Beijing. Looking at
6 urban scale energy modeling methods and tools that
7 can be exchanged with our Center and others that
8 we collaborate with to advance our understanding
9 of, as Gordon said, the very very complex
10 relationships when it comes to energy consumption.
11 The complex network, and then uses that you really
12 got to consider in the local level if you're going
13 to do effective integrated energy and urban design
14 plan.

15 Next slide, please. Well, one of the
16 initiatives that is currently being funded by the
17 U.S. Department of Energy, along with the
18 Commission's PIER program, is the Chula Vista
19 research project.

20 The project focuses on three new planned
21 communities in Chula Vista located at the center
22 of a very large, 6000-acre greenfield site, that
23 will ultimately be home to about 70,000 persons
24 over the next 10 to 15 years.

25 Together, the three communities, they

1 constitute approximately 1500 acres of land,
2 represent a variety of different development types
3 common to communities across the state.

4 As you can see here, densities vary by
5 development and although I'm showing averages on
6 the slide, densities run from about seven or eight
7 dwelling units per acre, right on up to about 95
8 dwelling units per acre in what is known as the
9 eastern urban center. That's the third one at the
10 bottom of the slide there. That upon buildout
11 will exceed the area of present-day downtown San
12 Diego.

13 These are very large, dense developments
14 that are actually being planned. And in the case
15 of village two, they've actually broken ground.
16 They're in Chula Vista.

17 Next slide, please. And as it's
18 formally stated here, the goal of the Chula Vista
19 research project is to advance the use of energy
20 efficient and renewable energy technologies in
21 large scale community development projects. And
22 to determine how to optimize their performance
23 through complementary land use and urban design
24 features.

25 Now, we're going to doing this, first

1 off, demonstrating how existing building
2 infrastructure land use in transportation modeling
3 tools can be combined to assess the energy,
4 economic and environmental impacts of all targeted
5 development scenarios for each of these
6 communities just described.

7 By then secondly assessing the impact of
8 the use of these scenarios on those communities
9 relative to the existing energy, and municipal
10 utility infrastructure.

11 And then third, by generating solutions
12 to the market and institutional barriers that
13 prevent the private development industry from
14 embracing more energy and resource efficient forms
15 of community development.

16 Next slide, please. There will be two
17 primary products of the research. The first will
18 be a guide for California development
19 professionals with case studies of commercially
20 viable integrated energy technologies community
21 design options, or as it states here, high
22 efficiency, low impact development in the San
23 Diego region.

24 But also a set of transferrable design
25 guidelines that will be applicable to communities

1 across California's 16 climate zones.

2 Second, there'll be a guide for state
3 agencies, finance entities, and local governments
4 with recommended public policy, incentives and
5 market mechanisms that would accelerate the use of
6 this form of development.

7 The guide will also contain a set of --
8 the second guide here will contain a set of
9 recommendations for future research needed to
10 continue to deepen our understanding of this
11 pursuit. And to improve our methods and
12 ultimately enhance our tools as we go on.

13 The project will then conclude with the
14 formulation of an outreach plan to put these
15 resources into the hands of the community
16 development practitioners, the administrators,
17 public agency personnel across the state.

18 Next slide, please. To guide the
19 project we've assembled an advisory committee
20 consisting of representatives of relevant state
21 and national organizations from, as you can see
22 here, the building industry, energy utilities and
23 companies, environmental and labor organizations,
24 federal and state government, real estate agents,
25 financial industry, the academic community and

1 municipal authorities and organizations.

2 And just today we've added to the state
3 and federal agencies NREL, so we'll have some
4 coverage along with U.S. Department of Energy.

5 Next slide. The methodologies that
6 we're using in the project is really pretty
7 straightforward despite the somewhat busy graphic.
8 My apologies there, but -- we can get through it.

9 Essentially we're using a set of
10 modeling tools that are shown right there in the
11 lower left-hand corner in that lower left-hand
12 box, to assess the end use energy consumption and
13 the related environmental and economic impacts
14 shown here in the two boxes outlined in blue on
15 the second line there. For the community
16 development project and they have been proposed by
17 the developer for the City of Chula Vista.

18 Then we're assessing the same energy
19 consumption and related impacts for two to three
20 alternative development scenarios for two of the
21 three communities that will utilize various
22 configurations and integrated energy technologies
23 and what we term performance-enhancing development
24 options. And those are shown there in the third
25 box from the top, right below the large blue

1 shaded box right there.

2 The keynote here is that the impact
3 analysis will include a very detailed look at how
4 these alternative scenarios would play out
5 relative to utilization of the existing energy
6 infrastructure.

7 And then we move to a stakeholder review
8 process and a set of expert surveys and roundtable
9 discussions that will engage all of the players in
10 the typical development transaction chain; you see
11 they're listed under stakeholder input under that
12 box.

13 And then we'll evaluate the feasibility
14 of these alternative scenarios and seek to
15 identify and remove, where possible, market and
16 institutional barriers that would prevent the use
17 of these integrated energy and development
18 options.

19 Next slide, please. The research team
20 for the project is arrayed here. They include top
21 energy modeling organizations from different parts
22 of the country. Sempra, San Diego Gas and
23 Electric, is working hand-in-hand with us. We're
24 very pleased to have their participation. And
25 indeed, could not have proceeded with the utility

1 impact assessment without their participation.

2 Major area universities are involved,
3 and we're very pleased to have the Burnham-Moore
4 Center for Real Estate, which is a depository of
5 some of the best real estate development minds in
6 the San Diego region collected there at the
7 University of San Diego. Along with the Energy
8 Policy Initiative Center there.

9 The City of Chula Vista has been also
10 very deeply involved in this from the economic
11 development department, to community development,
12 the planning department, the building department,
13 the Mayor's Office, and the City Manager's Office.
14 So this is a full-board participation on the part
15 of the City there.

16 Next slide, please.

17 MR. BARTHOLOMY: Doug, this is your
18 five-minute mark.

19 MR. NEWMAN: All right, thanks so much.
20 As far as the tools we're going to be using a
21 number, a couple of tools to model the building
22 energy consumption and related environmental and
23 economic impacts. Building energy analyzer, --
24 the Gas Technology Institute. Energy-10, a
25 product of the Sustainable Building Industry

1 Council.

2 The tools will enable us, as you see
3 there, that are all of the relevant building types
4 and construction elements, as well as a host of
5 advanced energy systems as shown here.

6 For the modeling, the Eastern Urban
7 Center will also be using TERMIS, which is a
8 product of seven technologies out of Denmark to
9 consider that.

10 On the land use infrastructure and
11 transportation side we'll be using Community-Biz,
12 a product of the Ordan (phonetic) Family
13 Foundation; CityGreen from American Forest
14 Organization. As you can see on this next
15 slide, -- sorry, Panama, we're on the slide with
16 "land use" at the top of it there.

17 MR. BARTHOLOMY: I'm with you, Doug.

18 MR. NEWMAN: Thanks. As you can see
19 here, these tools will enable us to examine a
20 variety of land use and urban design features that
21 impact building energy consumption and the
22 environment in the aggregate, and the energy
23 requirements for related environmental impacts for
24 urban infrastructures such as potable water,
25 sanitary water processing, et cetera.

1 On the transportation side CommunityBiz
2 will use a somewhat more conventional approach to
3 such vehicular energy consumption and related
4 environmental and economic impacts for the smaller
5 easter urban center, where given their more
6 advanced stage in development, many of the
7 roadways and street arterials are already fixed.

8 For the larger village -- site in an
9 earlier stage of development, we're going to be
10 employing the so-called 4D modeling method that
11 will allow for a far more detailed resolution of
12 analysis of transportation impacts associated with
13 the alternative development scenario. More
14 similar to what Gordon had just mentioned.

15 Next slide, please. The timeline for
16 completion of the project is about the next year,
17 with each of the time phases laid out by the three
18 basic modeling -- three basic tasks of the
19 project. The modeling, the stakeholder review
20 polity, market analysis, and the composition of
21 final guidelines.

22 Next slide, please. As for future areas
23 of research we have them here. First, the focus
24 on enhancing urban energy and development site
25 modeling tools. Research to advance our

1 understanding of the optimal approaches to urban
2 in-fill. And brownfield redevelopment with a
3 special focus on quantifying the efficiencies,
4 environmental and economic benefits of these
5 integrated technology development options that can
6 make that possible in today's marketplace.

7 Next, verification of these methods and
8 tools to insure that we're really investing in the
9 right approach.

10 Next slide, please. And then
11 examination of -- and smart microgrid systems that
12 incorporate the renewables, advanced energy
13 demands and control systems. Generation of
14 financial and risk mitigation measures that
15 address those first cost issues and risks of the
16 installing advanced energy and resource efficiency
17 technology in these projects.

18 A thorough statutory and regulatory
19 review that analyzed the implication of these new
20 approaches to community development relative to
21 the statutes and regs that govern brand new
22 subdivisions developments and related
23 environmental assessment.

24 And finally, and with great importance
25 here, research that develops and proves a solid

1 business case for energy and resource efficient
2 development. It's my deeply held belief that
3 without it we are not going to achieve private
4 sector investment and all of the buy-in at the
5 level that we need. And without that we're going
6 to fall short of where we ultimately need to be to
7 build more sustainable communities in California.

8 Next slide, please. And thank you very
9 much for your attention.

10 PRESIDING MEMBER PFANNENSTIEL: Thanks,
11 Doug. This is Jackie Pfannenstiel. Really
12 interesting stuff.

13 Can you help me a bit with the timeline.
14 You gave the timeline for the research. What is
15 actually happening physically with the
16 construction of the ranch site? And how is the
17 research fitting in with that? Is that not going
18 to happen until the research has been done? Is it
19 being -- is the actual construction happening
20 concurrently?

21 MR. NEWMAN: Yeah, what we've done here,
22 Commissioner, is we've got three different
23 development sites at different stages of the
24 development process.

25 For village 2, which is the furthest

1 along and it's had all of its plans approved,
2 given final approval by the City, they are now
3 actually in the process of breaking ground and
4 building.

5 In the case of the UC they have most of
6 their vertical elements in their site plan now
7 proposed to the City in a proposed plan for
8 council approval.

9 However, we are injecting the results of
10 the modeling research in that final approval
11 process, such that the developer and the City will
12 be able to look at these alternative development
13 scenarios and make changes as they see
14 appropriate, as a result of this research. Which
15 is really what makes it so exciting.

16 In the case of village 2, because it's a
17 done deal in terms of the development plan for
18 that site, what we have been doing is developing
19 the modeling protocol, the prototypical building
20 types and other elements that will apply to the
21 eastern urban center and village 9.

22 And then we're assessing the level of
23 efficiency and emissions reduction that they've
24 been able to achieve as the result of what is a
25 pretty sophisticated approach to building.

1 On village 9 they're at a much later
2 point -- I should say earlier point in the
3 development process, where we'll be able to do the
4 full modeling agenda, because there are very few
5 fixed elements in their plan at this point,
6 because it's not even been put into a preliminary
7 final plan the way the UC has.

8 So, we'll be able to inject and
9 fundamentally change the way dirt is moved around
10 on the EUC and on village 9. And those are the
11 portions of the larger DOE/UC funded project that
12 the Commission is focusing its support for.

13 PRESIDING MEMBER PFANNENSTIEL: So I
14 assume this question of attracting private capital
15 then is an ongoing question.

16 MR. NEWMAN: Absolutely. Absolutely it
17 is. And it's a major concern. The developer of
18 the eastern urban center, the Corky-McMillan
19 Company, is taking a very unusual development
20 approach to its acreage there. It's laying out
21 general plan development elements, but it is
22 letting the market determine the final mix of
23 buildings, building types, densities, et cetera
24 for their development.

25 And they'd like to be able to offer the

1 market the most informed energy and resource
2 efficient options it possibly can.

3 So this is something new for them, and
4 it provides us the unique opportunity to provide
5 them some real informed choices to put out there
6 for the marketplace. And private capital and how
7 it moves to the development will b a major part of
8 the research that we're conducting with your
9 support.

10 PRESIDING MEMBER PFANNENSTIEL: Thank
11 you so much.

12 MR. NEWMAN: Thank you.

13 MR. BARTHOLOMY: Thank you very much,
14 Doug, and I'm hoping that PIER's investment in
15 this project will mean that we now have a party
16 house in Chula Vista --

17 (Laughter.)

18 MR. BARTHOLOMY: -- set aside just for
19 the Energy Commission Staff.

20 (Laughter.)

21 MR. NEWMAN: Don't think a guy from
22 Chicago hasn't thought about that, himself.

23 (Laughter.)

24 MR. BARTHOLOMY: Right. Well, Chairman,
25 that concludes our panels today and we're into the

1 section on public comment.

2 PRESIDING MEMBER PFANNENSTIEL: Thanks,
3 Panama. Let's go through the cards that I have
4 and then others can address us if they choose.

5 Bob Laurie.

6 MR. BARTHOLOMY: I believe he's left and
7 said he would submit it digitally.

8 PRESIDING MEMBER PFANNENSTIEL: Okay,
9 thanks. Judy Corbett.

10 MS. CORBETT: Hi. Judy Corbett,
11 Executive Director of the Local Government
12 Commission. And Gary Patton sort of told you
13 about our genesis, which was an office in the
14 Commission, and we were appointed by the Governor
15 to work with cities' and counties' elected
16 officials to help them become more energy
17 efficient and implement renewable energy sources.

18 And the last time I was here, it was
19 quite a long time ago, and I was asked by one of
20 the Commissioner's Staff to talk about the work we
21 started doing in 1990 on land use, transportation
22 and energy.

23 So I did this little presentation on the
24 links between them. And I was told afterwards
25 that one of the Commissioners said to her staff,

1 is that woman crazy. So I can't tell you how much
2 I appreciate you folks.

3 (Laughter.)

4 PRESIDING MEMBER PFANNENSTIEL: Maybe
5 we're just all a little crazy now, Judy.

6 MS. CORBETT: Well, no, I refuse to
7 believe that. You asked about the private sector
8 and we've been working a lot with the Urban Land
9 Institute.

10 And what I hear over and over again, I
11 will put in the words of one developer, which is
12 that I've seen these wonderful visions of
13 beautiful communities in a general plan, and then
14 I go to build them and I'm told it's illegal.

15 And it is true that a lot of general
16 plans are very good, but they aren't implemented
17 in the zoning ordinances. And the zoning
18 ordinances are still saying separate your uses and
19 make the roads wide, et cetera, et cetera.

20 And for developers who want to do this,
21 and a lot of them do, we need to make it easier
22 and quicker to do it right. When you invest in a
23 piece of property you're paying on a loan on that
24 piece of property and the faster you get in and
25 out the better.

1 And a lot of these best practices
2 development projects are being held up for years
3 and years because they just don't meet the
4 regulations of the local government.

5 And you used to have, and I believe
6 still do have, a siting and permit assistance
7 grant program, I understand. And if we could put
8 some money into that to use for revolving loan
9 fund for local governments that want to update
10 their ordinances to bring them up to speed with
11 what we hope would be a general plan that would be
12 a smart growth general plan, that would be
13 enormously of assistance.

14 And then Steve Sanders said that what
15 local government needs is a list of strategies,
16 the breadth of strategies that local governments
17 could use to address smart growth and global
18 warming in general.

19 And my board, which is made up of city
20 and county elected officials pretty much said the
21 same thing, you know, give us a list of what do we
22 do and what are the paybacks of each in terms of
23 global warming.

24 Well, back in 1991 we worked with Nancy
25 Hanson McKeever on something called the energy

1 aware planning guide which was a beautiful thing,
2 which is just one or two pages on each strategy,
3 giving the summary of what it is and the
4 environmental impacts and the economic impacts;
5 and who's doing it; and the energy impacts.

6 And if we just added global warming to
7 that, that could be so useful. It needs to be
8 updated because we know a lot more about land use
9 and we know a lot more about water, particularly.
10 But it's a great format and I would really like to
11 work with ICLEI and the League of California
12 Cities and the Energy Commission to make that
13 happen.

14 And then the final thing is greening the
15 bonds. Sunne McPeak used to say, you need a
16 carrot big enough to be a stick, and now it's nice
17 to know that it's a carrot/stick, because that's
18 easier to say. But I think that, plus all the
19 loan and grant programs that the state offers
20 should be directed towards encouraging smart
21 growth.

22 I know Celeste Cantu, when she was part
23 of -- or Executive Director of the Water Resources
24 Control Board, did get some language which would
25 give priority to local governments that were doing

1 compact development for sewer extensions rather
2 than sprawl. I've been trying to find that
3 language. And since she's left, I can't. And I'm
4 hoping it's still there. But sure would love to
5 see all the state agencies do the same thing. And
6 I know you're not every state agency, but you're
7 one. So, thank you so much.

8 PRESIDING MEMBER PFANNENSTIEL: Thank
9 you so much. Steve Devencenzi.

10 MR. DEVENCENZI: Thank you, Madam Chair.
11 My name's Steve Devencenzi, and I'm with San Luis
12 Obispo's Council of Governments.

13 I wanted to come up today to not only
14 hear what our big brothers at SACOG and SANDAG had
15 to say about their planning efforts and the
16 modeling efforts and the discussions that Gary
17 had, because I wanted to bring you the perspective
18 of a smaller RTA MPO that's struggling with these
19 issues, as they are.

20 And the applications that we're facing,
21 you know, trying to bring this home, so to speak.

22 Over the past several years I've had the
23 privilege and the curse of being the interface
24 between Sacramento and San Luis Obispo. So I
25 transit the five-hour drive all too often.

1 And I come up here and I stand before
2 you representing seven cities and a county. And
3 then I turn around and I go home, and I represent
4 the State of California to those seven cities and
5 a county. And I turn around and come back up
6 here. And I feel a little schizophrenic at times.

7 But, you know, trying to translate the
8 two, and bring them together in a meaningful way
9 has been a challenge. But there's a lot of
10 gratifying work in that, kind of bringing that
11 message to the two as they come together.

12 And as you've heard today, we're at a
13 point where there's a synergy around all of these
14 issues coming together. As you saw at the
15 blueprint learning network last week, the kinds of
16 discussions that we're having, the kinds of
17 agencies that are now coming to the table wanting
18 to work together on these issues, especially as it
19 affects the greenhouse gas and energy concerns
20 being the threat that seems to be tying this
21 together where we're getting a handle on it now.

22 I came up last night wanting to give you
23 the message that Gary Patton gave you about we
24 need a way to model the little footprint of
25 development. And, in fact, I had this image of a

1 map -- you know, I've been looking at so many maps
2 with all the little parcels, and we struggle with
3 GIS -- and that's another rant I could go on, I
4 suppose, but I won't -- of, you know, a little
5 footprint on each parcel the size of its energy
6 use and carbon and all the rest. So there was
7 this nice visual for it.

8 But I think Gary expressed it pretty
9 well in terms of talking about a simple kind of
10 footprint model that we can use to begin to
11 compare these types of land uses and look at that
12 in the daily decisionmaking of our boards.

13 So, that was a big part of what I wanted
14 to talk to you about, was to get that support
15 filtered down to the smaller agencies. Because,
16 in an agency my size, there's just me most of the
17 time. And I might get an assistant or two, or a
18 couple of interns, and we get a little bit going.
19 And we rely on the good work of SACOG. And Mike
20 and his crew have been ever so generous in really
21 helping advance us along, that we've been able to
22 sort of ride on their coattails and benefit from
23 the work of others.

24 As I looked at your paperwork, you know,
25 it talked about the three issues you were looking

1 at in terms of energy generation, energy use and
2 policy. And maybe just to look at those in a
3 reverse order. As I'm talking about policy here,
4 this, you know, regional energy strategy that
5 we're beginning to develop in the regions around
6 the state.

7 Next month a group in our area is
8 looking at putting on a two-day forum on the
9 energy issue to pull together leaders. And I
10 believe the Chairman has been invited to speak. I
11 hope you will be able to make it for that session.

12 We're starting to see that coalesce and
13 tie into these blueprint planning efforts. But
14 more than that, we're also starting to see the
15 housing and economic development people come to
16 the table around this.

17 I'll be doing a presentation to our
18 Economic Vitality Corporation next week -- in two
19 weeks, actually. And we're going to be looking at
20 putting together a regional economic strategy that
21 will be tied to our blueprint work, that's tied to
22 our modeling; that's tied to our regional
23 transportation plan; that's tied to our APCD's
24 work.

25 So, as I said, this synergy that's

1 coming around these things now is really
2 phenomenal. I hope you can direct the resources
3 that you can to assisting in these modeling
4 efforts. the last discussion that was just
5 presented, I thought, offered some encouraging
6 areas.

7 But as this comes together in the policy
8 arena, in support of blueprints and the GREEN-TEA
9 concepts, as we look at land use and the dynamics
10 associated with that, and supporting the model
11 energy use and impacts that can showcase these
12 implementation tools.

13 And as we bring that around to energy
14 use, I see us coming around to where we can direct
15 energy policy analysis towards spending via the
16 utilities. I was very happy to hear the
17 utilities' discussion today, and their
18 willingness. And we can direct them, or they are
19 directing themselves, to come to the table with
20 us, to begin to define these things.

21 And look at the distributive models that
22 can come out of this where, once we understand
23 what our footprint is, once we look at the
24 distributive nature of it, how do we feed back in
25 there, begin to neutralize it out in terms of the

1 energy generation component.

2 So I see us integrating very well.

3 Appreciate your support. And I'll be at the
4 Transportation Commission's meeting on Thursday as
5 we talk about this. And I think we all should,
6 you know, have a collective pat on the back, shall
7 we say, in our willingness to work together to
8 move this agenda.

9 So, thank you.

10 PRESIDING MEMBER PFANNENSTIEL: Well, I
11 appreciate your coming up here. And I will tell
12 you the obvious. We are here in Sacramento. And
13 so in order to find out what isn't working for
14 you, you need to tell us.

15 And so coming up and participating in
16 this was incredibly valuable to us. Written
17 comments will also be appreciated. We want to --
18 we sometimes talk to each other too much. And so
19 we need to hear what it is either that we're doing
20 wrong, or that we're doing fine, but could be
21 doing better.

22 So, thank you so much for being part of
23 the discussion.

24 MR. DEVENCENZI: I appreciate that.

25 And, you know, I think that that's one of the real

1 values of the blueprints. As I say, when I'm
2 talking to my jurisdictions and representing them
3 and I'm hearing their complaints about the state,
4 their concerns that you're trying to run their
5 lives. And we want to see that that communication
6 goes both ways.

7 And I think a good example was last week
8 at the Blueprint Network when we webcast the
9 sessions. Those sessions are now available on the
10 web. And you can go back and you can glean that
11 information in the aftermath, and it's not just
12 the group that was there that sort of has it
13 wither on the vine.

14 So I encourage you to use those
15 technologies, as well.

16 PRESIDING MEMBER PFANNENSTIEL: That's
17 great. Thank you very much, Steve.

18 Victoria Rome.

19 MS. ROME: Good afternoon, and thank you
20 for the opportunity to provide comment. I'm
21 Victoria Rome with the Natural Resources Defense
22 Council.

23 And we're very interested in the draft
24 staff paper that came out. And this is an area
25 that we're very interested in, as well, as we look

1 to implement AB-32; how we're going to get those
2 emissions reductions from the land use side.

3 And a couple of just comments about the
4 report. One thing that we think might be
5 interesting to explore, in addition to what you
6 already have in there, is looking at the lead time
7 that it would take to see benefits of better land
8 use planning.

9 For example, you know, if we enact some
10 of these policies now, what benefits would we see
11 by 2020, the first, you know, real target in AB-
12 32.

13 On the modeling issue, that's an area
14 where we've done a lot of work, and we appreciate
15 the recognition of my colleague, David
16 Goldstein's, work in this area in the shortcomings
17 of transportation models.

18 One area where we might differ slightly
19 with your report, though, is in highlighting
20 modeling improvement as an area in need of further
21 research. We believe that there is sufficient
22 research already existing that shows that the real
23 world effects of smart growth projects are not
24 accurately or fully predicted by the models.

25 And the MPOs, the large MPOs at least,

1 don't quibble with this point. So we often hold
2 up Sacramento and SACOG as a good example of where
3 we'd like most of the regions to be. And they,
4 you know, recognize they have further work to do,
5 as well. But we think they're definitely moving
6 in the right direction.

7 So, we would appreciate the Commission's
8 support on our efforts to just get this statewide
9 process enacted that we have pursued through
10 legislation, at the CTC, to have them direct a
11 statewide process to improve transportation models
12 in the ways that we've identified.

13 And also appreciate you looking at LEED-
14 ND as a new project that's very promising and
15 looking to quantify the benefits of those
16 projects.

17 And last, just as one of the sponsoring
18 organizations of SB-375, just wanted to mention
19 that as a bill currently moving through the
20 Legislature, as Gary Patton described. And we
21 think that it would help move forward many of the
22 issues that you've identified in the report,
23 specifically in terms of directing incentives and
24 funding towards those areas that are trying to
25 move forward on some smart growth policies.

1 So, thank you for the opportunity.

2 PRESIDING MEMBER PFANNENSTIEL: Thank
3 you for being here.

4 Terry Parker.

5 MS. PARKER: Hi. We just came over from
6 the Caltrans Division of Transportation Planning
7 to kind of check out and see what was going on
8 today. So, thank you for --

9 PRESIDING MEMBER PFANNENSTIEL: How are
10 we doing?

11 MS. PARKER: Great. This is a very good
12 dialogue, and appreciate it very much.

13 I actually just wanted to throw out a
14 couple of items of information to just let your
15 staff know what is going on over in Caltrans.

16 With three projects that specifically
17 address the relationships, quantitative
18 relationships between smart growth -- land use
19 strategies and transportation benefits and
20 impacts.

21 At the regional and statewide level, as
22 Gordon Garry mentioned, we are working on a \$1.5
23 million feasibility study regarding the potential
24 implementation of the same kind of model that
25 SACOG has pioneered in California, the PECAS

1 integrated, it's basically a microeconomic land
2 use and transportation model. UC Davis is
3 conducting that study. Mike McCoy is up this
4 eyeballs in alligators, as they say, trying to get
5 all the data together for a state as large as
6 California. So it really truly is a feasibility
7 study.

8 But if it's found that this kind of a
9 model could be implemented, it has tremendous
10 potential in providing, I think, an analysis tool
11 for inter-regional assessment, and also for
12 assessment of goods coming into California and
13 their effects on the transportation network.

14 Jobs/housing balance issues between say
15 the Inland Empire and the coastal areas in
16 southern California, the Central Valley and
17 coastal areas in northern California.

18 And for the first time give us a tool to
19 where we could really, in a quantitative really
20 fair manner look at the potential benefits and
21 tradeoffs of a number of strategies, ranging from
22 market measures to increasing housing supply near
23 job centers, to more traditional transportation
24 approaches such as, well do you build rail or do
25 you widen the freeway.

1 We currently do not have in this state
2 the ability to assess those kinds of options on an
3 inter-regional basis, or between states, for that
4 matter. So this is a very exciting project.

5 At the local city and county level we
6 are just actually today I had the last TAC meeting
7 this morning to put together a report assessing
8 the types of modeling tools and models that are
9 available at the city and county level for
10 assessing land use strategies, smart growth land
11 use strategies.

12 And there is a very complete chapter --
13 NRDC Staff person will like this -- on the exact
14 and specific limitations of travel demand models
15 in this regard that I think is the first time
16 that's been done.

17 And also an assessment, it also looks at
18 places and index on the other four Ds
19 applications. And I think is going to provide
20 some helpful, useful guidelines to local agencies
21 on best practices for how they can appropriately
22 implement those, and for what uses.

23 And in addition, this is -- and I'd be
24 happy to send copies of all these reports to the
25 staff. This is just to let you know what's going

1 on over there.

2 Caltrans is spending more than half-a-
3 million dollars of our own research funding to get
4 trip -- to develop for the first time ever trip
5 generation rates for urban in-fill land uses.
6 Those do not currently exist in the Institute of
7 Transportation Engineering manual that is used to
8 develop traffic impact studies of land use
9 development projects.

10 And this is something I've been hearing
11 about for the last 15 years. It's something that
12 we need. Well, we just decided to jump in and do
13 it. And we are, it's very difficult and
14 challenging. But we are coming along with a pilot
15 study. We are going to be doing a phase two
16 starting next spring.

17 And in addition, we have proposed to the
18 National Transportation Research Board a very
19 similar project at the national scale to obtain
20 trip generation rates for urban in-fill land use
21 that was recently approved. And I'll be serving
22 on that panel. And that should give us national
23 data.

24 With all these data sources, it's
25 expected that the ITE will accept this data into

1 their manual in its next publication.

2 So, I think these are all exciting
3 projects at the site-specific, local, regional and
4 statewide level that could fit very well in with
5 the efforts that are going on here. And I just
6 kind of wanted to make that step.

7 PRESIDING MEMBER PFANNENSTIEL:

8 Excellent, thank you very much.

9 MS. PARKER: Okay, thank you.

10 PRESIDING MEMBER PFANNENSTIEL: Great.

11 Matt, is there anybody on the phone? No comments
12 from the phone?

13 Anybody else here who would like to
14 address us?

15 Panama, any final logistical comments?

16 MR. BARTHOLOMY: Just one. I want to
17 thank everybody for the day and for your
18 attendance and for all of the vegetable metaphors
19 as were garbled through the commentary throughout
20 the day.

21 As was mentioned we did release last
22 week our draft paper on the role of land use in
23 meeting California's energy and climate goals.
24 We're accepting comments on that until July 6th.

25 If you go and grab the notice as you

1 leave, you'll be able to find information on how
2 to submit comments on that; and comments on --
3 there's also about 20 questions on the back of the
4 notice that we're looking for feedback on, as
5 well.

6 So, please grab a notice and please
7 provide us with comments on that.

8 And that's it for me, Chair.

9 PRESIDING MEMBER PFANNENSTIEL: Okay. I
10 wanted to thank Panama for MC-ing this. I want to
11 thank the staff in general, the Energy Commission
12 Staff in general for doing a really nice job of
13 putting together the report, and gathering
14 together for our help and our benefit, these
15 really amazing experts.

16 As several people mentioned, the Energy
17 Commission is pretty new to this little area of
18 land use. And the more we dig into it, the more
19 impressed I become in how much has gone before us,
20 and how much work is underway. And now in this
21 post-AB-32 context where we're trying very hard to
22 think about how to reduce our carbon usage in
23 California, and looking at energy use and
24 transportation generally, and how land use affects
25 that, I understand that it's very complicated.

1 And many here have a lot more years in looking at
2 this than I have.

3 So I really appreciate people coming and
4 sharing with us what you know and what the issues
5 are and where to look out for the land mines. And
6 they seem to be everywhere.

7 We have a long ways to go. And please
8 stay with us in the process. Thank you very much.

9 We'll be adjourned.

10 (Whereupon, at 4:21 p.m., the Committee
11 workshop was adjourned.)

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CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter,
do hereby certify that I am a disinterested person
herein; that I recorded the foregoing California
Energy Commission Committee Workshop; that it was
thereafter transcribed into typewriting.

I further certify that I am not of
counsel or attorney for any of the parties to said
workshop, nor in any way interested in outcome of
said workshop.

IN WITNESS WHEREOF, I have hereunto set
my hand this 23rd day of July, 2007.

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